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STATE OF NEW YORK

A PROGRAM FOR THE CARE OF THE CHRONICALLY ILL IN NEW YORK STATE

New York State Commission
To Formulate A Long Range
Health Program
also known as
New York (State) Health Preparedness Commission

STATE OF NEW YORK

A PROGRAM FOR THE CARE OF THE CHRONICALLY ILL IN NEW YORK STATE

". . . In order to bring Health to a people (as distinct from an individual) its ideas and ideals must receive their common assent, must be administered by central and local authorities closely cooperating, and must depend in large measure upon voluntary service and the voluntary spirit. More than any other single activity of government a public health service can only be effective if it is received and practised by an enlightened people. They are partners here, and must take a sensible and intelligent share; for the matter is domestic and personal, an issue to be determined by man's will, or it is nothing."

SIR GEORGE NEWMAN
"Health and Social Evolution"
London, 1931, pp. 190–191.

NEW YORK STATE COMMISSION TO FORMULATE A LONG RANGE HEALTH PROGRAM

also known as

NEW YORK STATE HEALTH PREPAREDNESS COMMISSION

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ALBANY, N. Y., *April* 30, 1947

To His Excellency, The Governor of the State of New York and to the Honorable Members of the Legislature of the State of New York:

The New York State Commission to Formulate a Long Range Health Program has the honor to submit for favorable consideration the final report of its activities, studies, investigations, analyses and recommendations prepared pursuant to the powers and duties conferred upon it by chapter 682 of the Laws of 1938, chapter 933 of the Laws of 1939, chapter 798 of the Laws of 1940, chapter 483 of the Laws of 1941, chapter 382 of the Laws of 1942, chapter 207 of the Laws of 1943, chapter 279 of the Laws of 1944, chapter 255 of the Laws of 1945, chapter 406 of the Laws of 1946, and chapter 344 of the Laws of 1947.

This report has been divided into two parts: Part I—A Program for the Care of the Chronically Ill in New York State and Part II—An Historical Summary of the Work of the Commission from 1938 to 1947.

Respectfully submitted,

LEE B. MAILLER, *Chairman,* Majority Leader
of the State Assembly

FREDERIC H. BONTECOU, *Vice-Chairman,* Senator

ELSIE M. BOND, *Secretary*

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Commissioner of Health

ROBERT T. LANSDALE
Commissioner of Social Welfare

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* Assemblyman
** Senator
† Appointed by the Governor
‡ Two vacancies

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Health Officer, Rochester, N. Y.

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Mrs. Almira H. Hemstead, R.N.....Chairman, Advisory Subcommittee on Nursing Care

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James E. Perkins, M.D.....Deputy Commissioner, State Department of Health

Ruth Taylor..Commissioner, Westchester County Department of Public Welfare

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PART I

A PROGRAM FOR THE CARE OF THE CHRONICALLY ILL IN NEW YORK STATE

FOREWORD

The care of the chronically ill presents a serious problem which gives every indication of becoming more aggravated with the progressive aging of our population. In 1940 chronic diseases caused nearly 70 per cent of the deaths in New York State. The ravages of chronic disease and the necessity of providing proper facilities and services to care for its unfortunate victims have been the subject of analysis and comment by physicians, hospital administrators, nurses, public welfare officials, clergymen and the general public. New York City, which already has instituted a program to meet this challenge, is finding it necessary to expand its facilities because of the increased demand. For most counties and cities of upstate New York, this remains an unresolved problem which cries for solution.

In September 1944 the Commission invited a group of experts to a conference to discuss the need for and means of formulating a State program for the care of the chronically ill. In December of the same year, the Commission approved the formal statement of these conferees which called attention to the magnitude of the problem, made suggestions for its amelioration and urged that immediate steps be taken. In conformance with these suggestions, the Commission also voted to formulate a plan for the care of the chronically ill of the State.

The studies, analyses and field work of the staff have substantiated the statement of the conferees made in 1944 and the program proposed in this report is largely an expansion and application of the principles thus originally set forth. The studies published in this and previous reports of the Commission give the documented evidence on which the Commission's recommendations are based.

In this final report the Commission submits its recommendations for a program to provide the facilities needed for care of the chronically ill and for mitigation of the effects of chronic illness through early diagnosis, improved medical treatment and rehabilitation. In view of the increasing proportion of older persons in the population and the greater prevalence of chronic disease in the older age groups, the Commission believes it essential that attention be focused on the chronic diseases and that comprehensive measures be initiated for extension and improvement of services for persons suffering from chronic illness.

The Commission is deeply grateful to the many able and distinguished persons who have given so generously of their time, counsel and experience—the members of the several Advisory Committees on Planning for the Care of the Chronically Ill; the administrators, directors and other staff members of general hospitals and of institutions specially concerned with the care of chronic illness; local commissioners of public welfare in the State; various State and local officials and departments; officials of other states; national organizations; and many other individuals and agencies interested in the problem. To them should go the gratitude of the people of New York State for their thoughtful advice and assistance.

LEE B. MAILLER, *Chairman*

FREDERIC H. BONTECOU, *Vice Chairman*

ELSIE M. BOND, *Secretary*

PROPOSED PROGRAM FOR THE CARE OF CHRONIC ILLNESS IN NEW YORK STATE

RECOMMENDATIONS

The studies of the Health Preparedness Commission indicate a growing realization throughout the State that present facilities for the care of chronic illness are inadequate. It is becoming more and more difficult to obtain long-term hospital care or good nursing home care. The number of persons affected by chronic illness has increased and will continue to increase because of the aging of our population. The prevalence of chronic illness rises with increasing age, but the majority of cases now occur within the productive ages of 25 to 64 years. Consequently, success in preventing and lessening the effects of chronic disease will assume mounting importance in our economy, particularly in assuring a sufficient labor force. Thus, on economic as well as humanitarian grounds, there has arisen widespread acceptance of the need for a comprehensive program for improving the care of the chronically ill and for advancing the preventive and rehabilitative aspects of chronic disease. The launching of such a program requires State leadership to provide coordinated effort of all the various agencies, official and private, which are concerned with various phases of this problem.

In order to provide such a program, the Commission makes the following recommendations:

1. That the State should provide or designate an agency for developing, coordinating, administering and carrying out a program of education, research, rehabilitation and improvement of facilities and services for the care of chronic illness, exclusive of tuberculosis and mental diseases. Such a program should be carried out in cooperation with both State and local official and voluntary medical, health and social agencies and would include, but not be limited to:
   (a) Assistance to local communities for the purpose of strengthening and developing facilities and services for the care of the chronically ill;
   (b) Cooperation with other State agencies concerned with the care of the chronically ill;
   (c) Education of the public and professional personnel in the prevention, care and amelioration of chronic illness;
   (d) Provision of consultation services to physicians, hospitals, other institutions and agencies caring for the chronically ill;
   (e) Coordination of services provided by the official and voluntary State and local agencies caring for the chronically ill;
   (f) Research in the prevention, diagnosis and treatment of chronic disease;
   (g) Development of services for the economic and social rehabilitation of the chronically ill;
   (h) Development and encouragement of preventive services for chronic illness.
2. That, for the purposes of planning for the care of the chronically ill, the State, exclusive of New York City, should be divided into five regions:
   (a) *The Buffalo Region,* consisting of the Counties of Cattaraugus, Chautauqua, Erie, Genesee, Niagara and Wyoming;
   (b) *The Rochester Region,* consisting of the Counties of Allegany, Chemung, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne and Yates;
   (c) *The Syracuse Region,* consisting of the Counties of Broome, Cayuga, Chenango, Cortland, Franklin, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence, Tioga and Tompkins;
   (d) *The Albany Region,* consisting of the Counties of Albany, Clinton, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren and Washington;
   (e) *The New York Suburban Region,* consisting of the Counties of Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, Sullivan, Ulster and Westchester.
3. That, for each region, the State should build or acquire and support a Chronic Disease Hospital Center to provide specialized facilities for diagnosis, treatment, teaching and research, and to serve as a chronic disease referral and consultation center for physicians, general hospitals and related institutions of the region. Such Centers would have the broad purpose of facilitating the continuous improvement of the care available for the chronically ill throughout each region. Each such Hospital Center should consist of at least 150 beds, with allowance for possible future expansion; and should be located, respectively, in Albany, Buffalo, Rochester and Syracuse and, for the New York Suburban Region, in New York City. Whenever feasible, the Hospital Center should be contiguous to a general hospital, in close proximity to a medical school and staffed and operated by contract with such hospital and medical school. Chronic Disease Hospital Center beds designated for the New York Suburban Region, and located in New York City, might be secured by contract with the City of New York.

These Chronic Disease Hospital Centers should be under the supervision of the designated State agency and be operated in accordance with its regulations. These Centers would have, but not be limited to, the following functions:

(a) To admit full, part-pay and free patients of any age suffering from chronic disease, referred by physicians, for the purpose of special diagnostic study and treatment, but not for the type of care usually available in general hospitals;

(b) To provide consultation and teaching service with regard to chronic disease, to the physicians, general hospitals, other institutions and agencies caring for the chronically ill;

(c) To provide undergraduate and postgraduate teaching service to medical students, physicians and nurses;

(d) To conduct research into the prevention, diagnosis, treatment and amelioration of chronic disease;

(e) To provide a complete rehabilitation service for the disabled and chronically ill, including research in improved methods of rehabilitation and professional training for physicians, nurses, physical therapists and other professional personnel in this field.

4. That, for the City of New York proper, the State should support a number of chronic disease hospital beds equal to the total of those supported for the five regions heretofore described, and to the same extent; and in accordance with a plan to be submitted by the City of New York and approved by the designated State agency.

5. That hospital care for the chronically ill, other than that provided by the Chronic Disease Hospital Centers, should be made widely available in general hospitals throughout the State, preferably in designated wings, wards or floors of general hospitals or in contiguous buildings; and that there should be formal affiliation between such hospitals and the Regional Chronic Disease Hospital Centers for the purpose of:

(a) Referral of patients for special study at the Center;

(b) Consultation and teaching visits of professional personnel from the Center to the general hospitals.

That rehabilitation services for the disabled and chronically ill be developed as rapidly as possible in selected general hospitals throughout the State by providing the services of trained personnel and by providing funds for the training of needed personnel in this field.

6. That, in the allocation of State and Federal funds for aiding hospital construction, special consideration should be given to projects for the establishment or expansion of facilities for the care of the chronically ill in general hospitals.

That, in planning the construction of state aided county general hospitals, provision should be made for the addition of nursing home facilities for the care of chronically ill persons of all economic levels, not requiring hospitalization, who cannot be cared for at home and who need nursing home type of care.

7. That all medical and related institutions caring for the chronically ill, such as hospitals, nursing homes and convalescent homes, should be required to meet minimum standards of facilities and care formulated and published by the State. This is an integral part of the general problem of improvement of standards of medical institutional care for all illness. In establishing and maintaining minimum standards of facilities and care in medical institutions, the joint efforts of all official agencies concerned with such standards should be utilized, with the advice and assistance of an advisory group of persons experienced in the technical aspects of medical institutional care. Through similar means, every aid should be extended to such institutions in meeting minimum standards, including an educational program and consultation service by qualified personnel.

8. That public homes, including their infirmaries, which admit or continue to house chronically ill persons who do not need hospitalization, should provide care for such persons in accordance with minimum standards of physical facilities and medical care established by the State for such medical related instituitons caring for the chronically ill. Such facilities should be available for use by all persons, including full and part-pay patients.

That, in planning for new construction of public home infirmaries, such infirmaries, if they are to be used for the care of the chronically ill, should:

(a) Be located near and operated as part of the county or city general hospital or, in the absence of such a public general hospital, be located near, and affiliated with a voluntary general hospital;

(b) Possess physical and personnel facilities suitable for the care of the chronically ill;

(c) Be available for use by all persons, including those able to pay the cost of their care in whole or in part.

That all chronically ill and disabled persons in public homes be examined by professional personnel skilled in modern methods of rehabilitation and that rehabilitation service be made available to all such persons in need of this service.

9. That the expense of care and rehabilitation of chronically ill persons unable to pay therefor, in whole or in part, in general hospitals and related institutions, such as nursing homes, convalescent homes and public homes, should not fall wholly on the local community, but should be shared by the State, provided that such hospitals and related institutions meet the minimum standards of physical facilities and medical care to be established by the State. It is recognized that this is a part of the broader problem of extension of State assistance to local communities for medical and hospital care of the sick unable to pay therefor.

10. That services for the care of the chronically ill in their homes should be expanded through:
    (a) Increased provision for bedside nursing care of the chronically ill in their homes by local health agencies, utilizing both official and voluntary visiting nursing personnel wherever possible;
    (b) Provision for housekeeping aides in the homes of the chronically ill through organized programs of local departments of public welfare, under the supervision of the State Department of Social Welfare, and in cooperation with the home nursing program of the local health agencies.

11. That, in order to define their possible relationships to a program for the care of the chronically ill, an appropriate State agency or commission should be designated to make special studies of each of the following:
    (a) The problem of providing facilities and services for the study, rehabilitation and care of persons suffering from chronic alcoholism;
    (b) The problem of providing the needed facilities for the institutional care of persons suffering from mild mental and emotional disturbances associated with aging.

12. That a State Advisory Committee and a Regional Advisory Committee for each region, as previously described, should be created to act in a consultative capacity to the agency provided or designated by the State to carry on the program for the care of the chronically ill. Each such committee should consist of persons prominent in medical, public health, hospital and social welfare activities and representing the professions and official and voluntary agencies concerned with the problems of the chronically ill.

This program would apply to all the chronically ill, except the tuberculous, the mentally ill and others for whom special provision is made, regardless of economic status. It is proposed as the first major step to be taken in a long range program for mitigating the effects of chronic disease, rather than a detailed blueprint foreshadowing all future developments in this field. It is designed to supplement existing facilites and to aid presently operating agencies in meeting problems in the care of chronic illness which now confront them. It does not necessarily envisage, and is not dependent upon, any fundamental change in present methods of payment for medical services. Because of the pressing needs which exist in the field of chronic illness, the development of this program should proceed as rapidly as is consistent with sound medical practice and administrative procedure.

Pending other designation by the Legislature of a State agency for implementing the proposed program, the Commission recommends that, upon its termination on April 30, 1947, responsibility for further development of this program should be transferred to the New York State Joint Hospital Survey and Planning Commission, within the limitations of its powers, as prescribed by law. The Hospital Survey Commission already has incorporated in its planning the regional concept, with regard to medical services, which has been recommended above. The scope of its duties also encompasses responsibility for another of the recommendations made, namely, the development of hospital facilities for chronic illness. The fact that the Commission's membership consists of the Commissioners of the Departments of Health, Mental Hygiene and Social Welfare, each of which is concerned with important segments of chronic disease, renders it well suited for taking further action on other of the recommendations made, either directly or through the cooperation of these Departments of the State.

Through the agency of the Joint Hospital Survey Commission, in cooperation with the various governmental and private agencies concerned, immediate steps could be taken to carry out, either in whole or in part, the recommendations with regard to (a) formation of State and regional advisory committees, (b) formulation of plans for Chronic Disease Hospital Centers, (c) development of a plan for support of chronic disease hospital beds in New York City and (d) further study of the problems of chronic alcoholism and of mild mental disturbances associated with aging.

Formulation of minimum standards for medical institutions should enlist the cooperative aid of the several State Departments (Health, Social Welfare Mental Hygiene) having special skills and experience regarding various aspects of medical institutional care. Since the Joint Hospital Survey Commission, under the law creating it, may assume responsibility for formulating standards for hospitals, including chronic disease hospitals, and since its membership includes the commissioners of the three departments chiefly concerned, it is an appropriate agency for

implementing this recommendation also. The improvement of standards in public homes and in private nursing homes are related problems which should be approached in the same way, under the leadership of the State Department of Social Welfare.

Nursing care and housekeeping aid in the homes of the chronically ill are essential services which should be provided by local health and public welfare departments, respectively. The development of such services by these agencies should be stimulated and assisted by the State Departments of Health and Social Welfare, in cooperation with whatever State agency assumes permanent responsibility for the chronic disease program.

The recommendation for extension of state aid to local communities to help meet the burden of hospital and institutional care of the chronically ill is one which should be viewed as part of the whole problem of extension of state aid in the institutional medical care of those unable to pay for part or all of such care.

Aid in obtaining rehabilitative services is already available for various groups of the population under programs administered by several State agencies, including the Departments of Education, Health and Social Welfare. Further exploration and planning regarding needed extension of facilities for such services in general and special hospitals would appear to be within the present powers and duties of the Joint Hospital Survey Commission, especially since affiliation between several hospitals on a regional basis may be required to provide a more complete service of this type. Progress in extension of facilities would increase greatly the applicability and scope of existing rehabilitation programs.

The steps suggested above would best meet the demands for leadership; would make possible the consummation of the various aspects of the program in a sequence compatible with the urgency of fundamental need; would enlist the acceptance, interest, understanding and cooperation of the many individuals and agencies intimately concerned with providing care for the chronically ill; and would give constructive and substantial evidence of the State's interest in the problem and determination to meet its challenge.

THE NATURE AND EXTENT OF CHRONIC ILLNESS

In the past, interest and attention has been focussed on the acute forms of disease, which either kill or are cured. Acute infectious diseases such as diphtheria, pneumonia or meningitis; acute surgical conditions, such as appendicitis, ruptured peptic ulcer, an infected middle ear and mastoid—these have held the center of the stage and have motivated most of our thinking and planning with regard to health and health facilities. These dramatic conditions will always be of the greatest importance, but they no longer comprise the major portion of our health problem. This is due, first, to the great advances made in the prevention and successful treatment of many of the acute diseases and the reduction of infant deaths (Figures 1 and 2); second, to the fact that few such corresponding advances have been made with regard to most of the chronic diseases and, third, to the increasing proportion in our population of older people, among whom chronic diseases are most prevalent.

The chronic diseases, in contrast to the acute diseases, cause prolonged or frequently returning periods of illness and disability. They consequently require correspondingly prolonged medical and nursing care at home or in a hospital or related institution. Although they may first manifest themselves by some sudden event, such as a stroke or a heart attack, chronic diseases usually develop slowly. The early signs and symptoms are generally vague or mild. Often there is a long period during which no symptoms appear, but the fact that disease is present may be discovered by thorough medical examination. Subsequently there ensues, characteristically, a long period when symptoms occur but are not severe enough to interfere with the patient's usual occupation. This period is followed, most often gradually but sometimes suddenly, by the more serious stages of partial or complete disability—which may last many months or years.

The most important forms of chronic disease are (1) heart disease, (2) arteriosclerosis and high blood pressure, (3) nervous and mental diseases, (4) rheumatism, (5) nephritis and other kidney diseases, (6) tuberculosis, (7) cancer and other tumors, (8) diabetes, (9) hay fever and asthma, (10) hernia. Mental disease and tuberculosis have long been recognized as public health problems and are today receiving increased attention in planning in this State. They have, therefore, been excluded from consideration in this report.

Increasing importance of chronic disease. As the result of the increasing proportion of older persons in the population, and the remarkable advances of medical science in conquering many of the acute diseases, chronic disease has emerged as the most important cause of disability and death. (Figure 3.) It is estimated that over 70 per cent of all disability is caused by some form of chronic disease. Chronic diseases, which in 1900 caused 26 per cent of the deaths in New York State, caused almost 70 per cent of the deaths in 1940 (Figures 4 and 5) and now comprise seven of the ten leading causes of death.

Relationship to age. No age is immune to chronic disease. Over 40 per cent of cases causing prolonged disability are found in persons under 45 years of age (Figure 6), 60 per cent occur during the most productive working period of 25 to 64 years, and there are important aspects of chronic disease among children, adolescents and young adults. However, chronic disease does occur with increasing frequency among older persons. Compared to the prevalence (number of persons with chronic disease out of every 1,000 persons) at age 15–24 years the prevalence among persons aged 25–44 years is more than twice as great; among those 45 to 64 it is more than four times as great; and among those over 65 it is almost ten times as great. (Figure 7.)

Since the proportion of older people in our population is continually increasing, the prevalence of chronic illness may be expected to increase accordingly. For example, the proportion of persons aged 65 years or older in New York State in 1940 was 6.8 per cent. It is estimated that by 1960 this percentage will have increased to 10.3 and by 1980 it will be 13.1, or almost double that in 1940. (Figure 8.) The number of persons with chronic disease may be expected to increase, over the 1940 prevalence, by 17 per cent in 1960 and 19 per cent in 1980 because of this aging of our population, combined with estimated changes in the total number of persons in the State. (Figure 9.)

Social aspects of chronic disease: (a) *Effect on the home.* Chronic illness may have marked, devastating effects on the family in which it occurs. While short term acute illnesses can be handled more often by the average family's resources, a chronic disease which keeps the wage-earner off the job for many days or months is more apt to cause severe economic handicap. Chronic illness is an important cause of economic dependency, with its attendant train of evils. Further, the presence of a chronically ill parent or grandparent often causes psychological or emotional disturbances which are sometimes severe enough to break up the home. If the patient is the wife's relative, the husband may resent the added financial strain; if the converse is true, the wife may rebel at the added nursing and housekeeping care she must provide. Often the children are affected by the tense, gloomy, sick-room atmosphere which prevails in such a home and may react with delinquent types of behavior.

FIGURE 1.

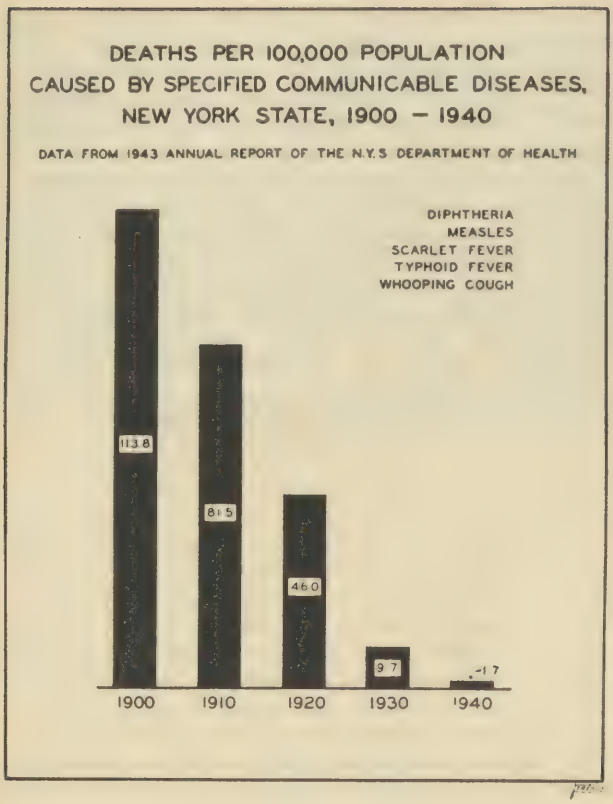


FIGURE 2.

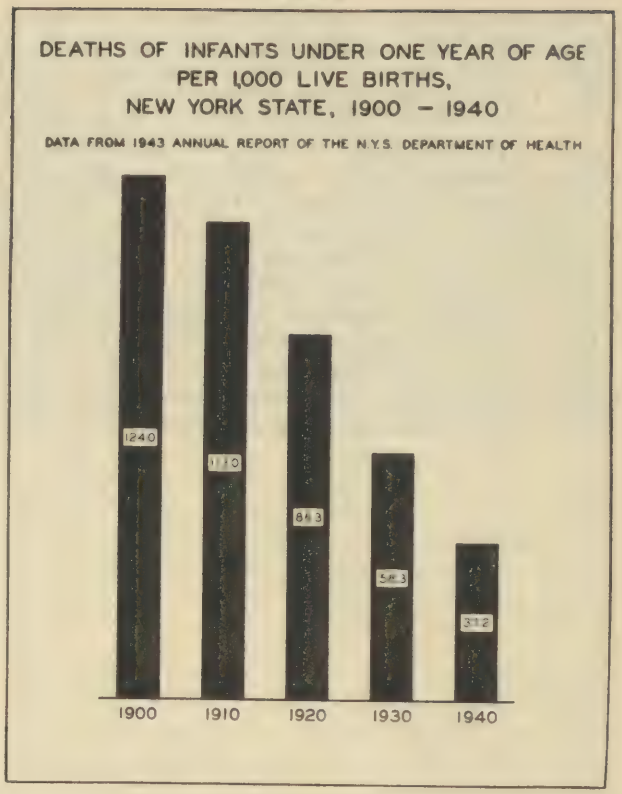
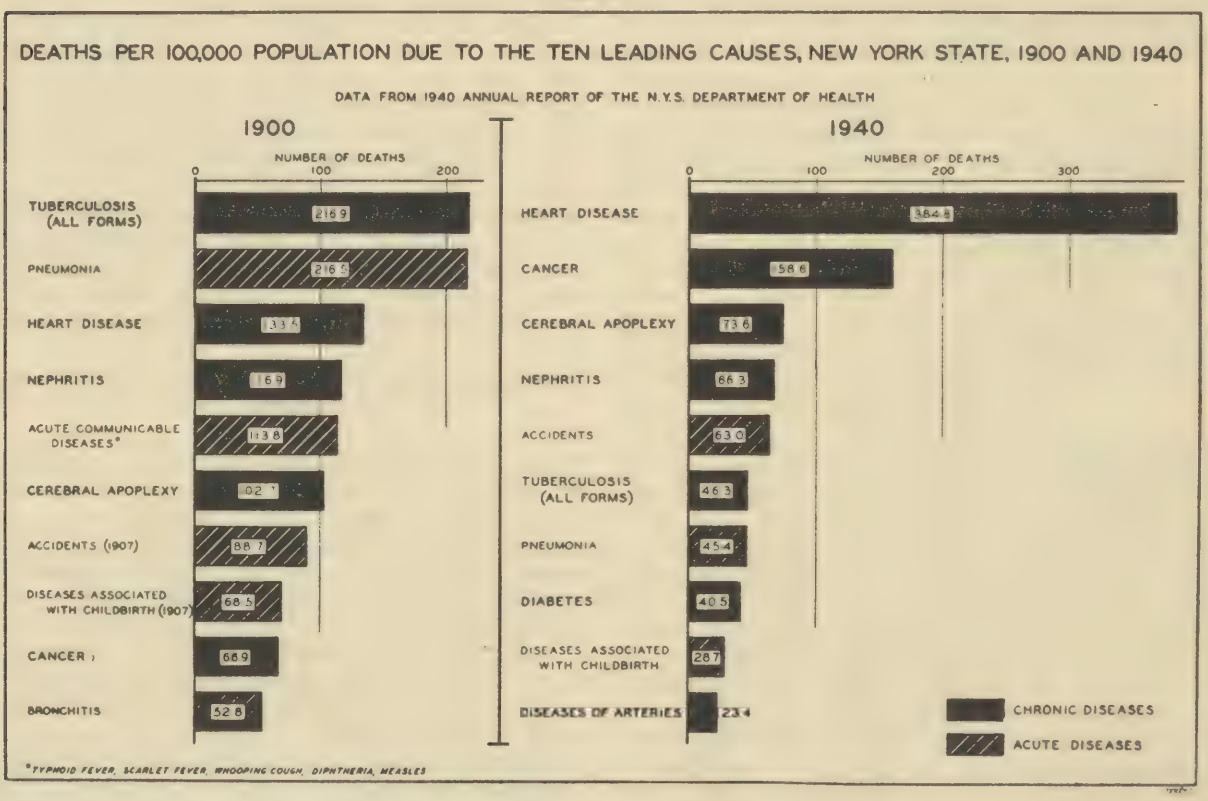


FIGURE 3.



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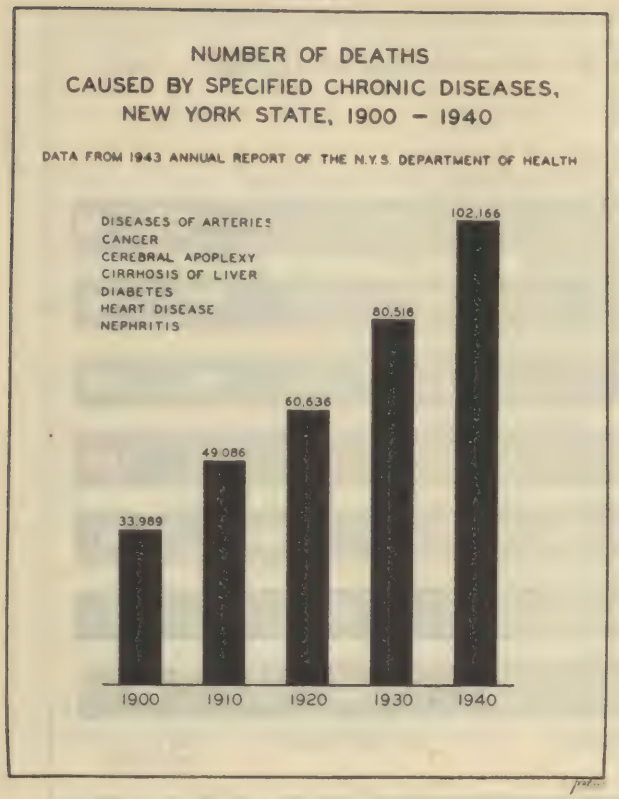

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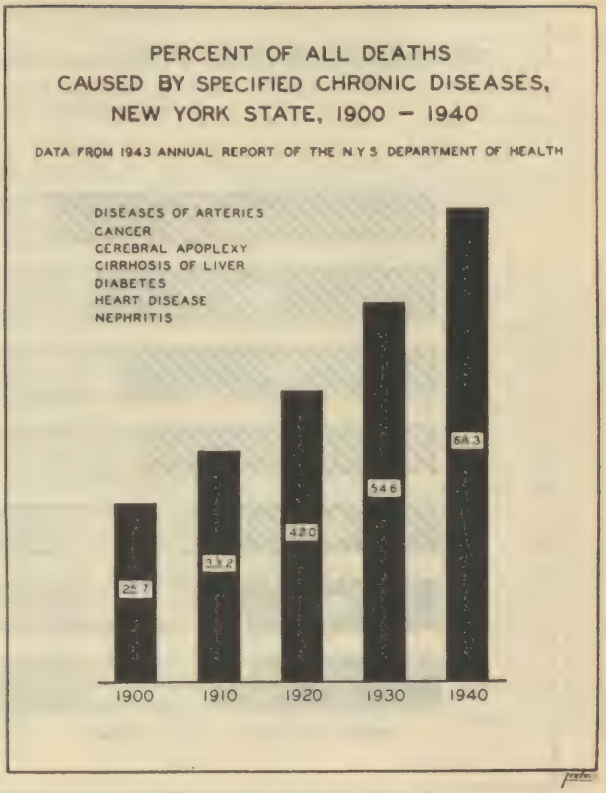

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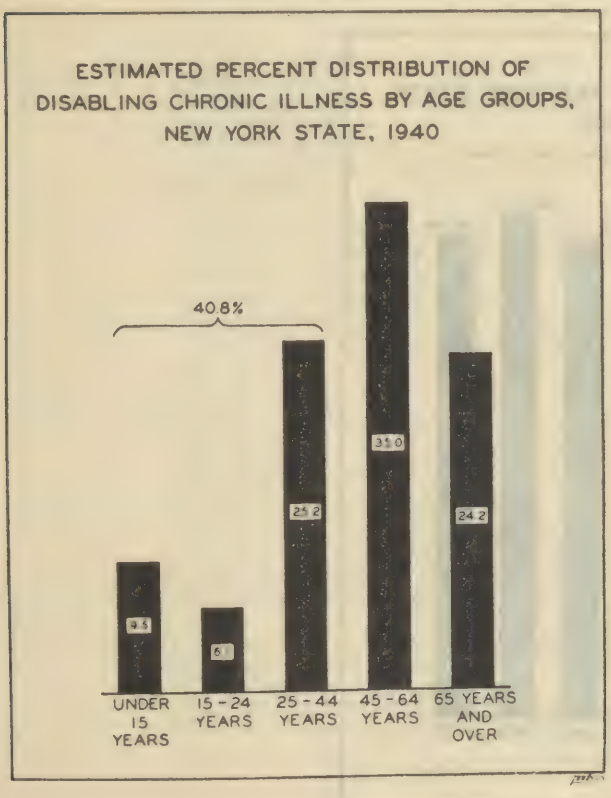


FIGURE 7.

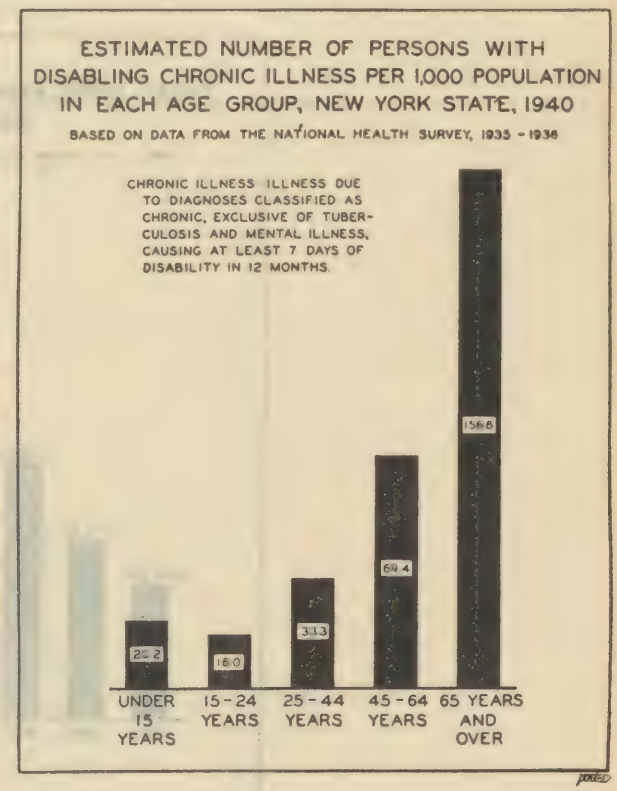


FIGURE 8

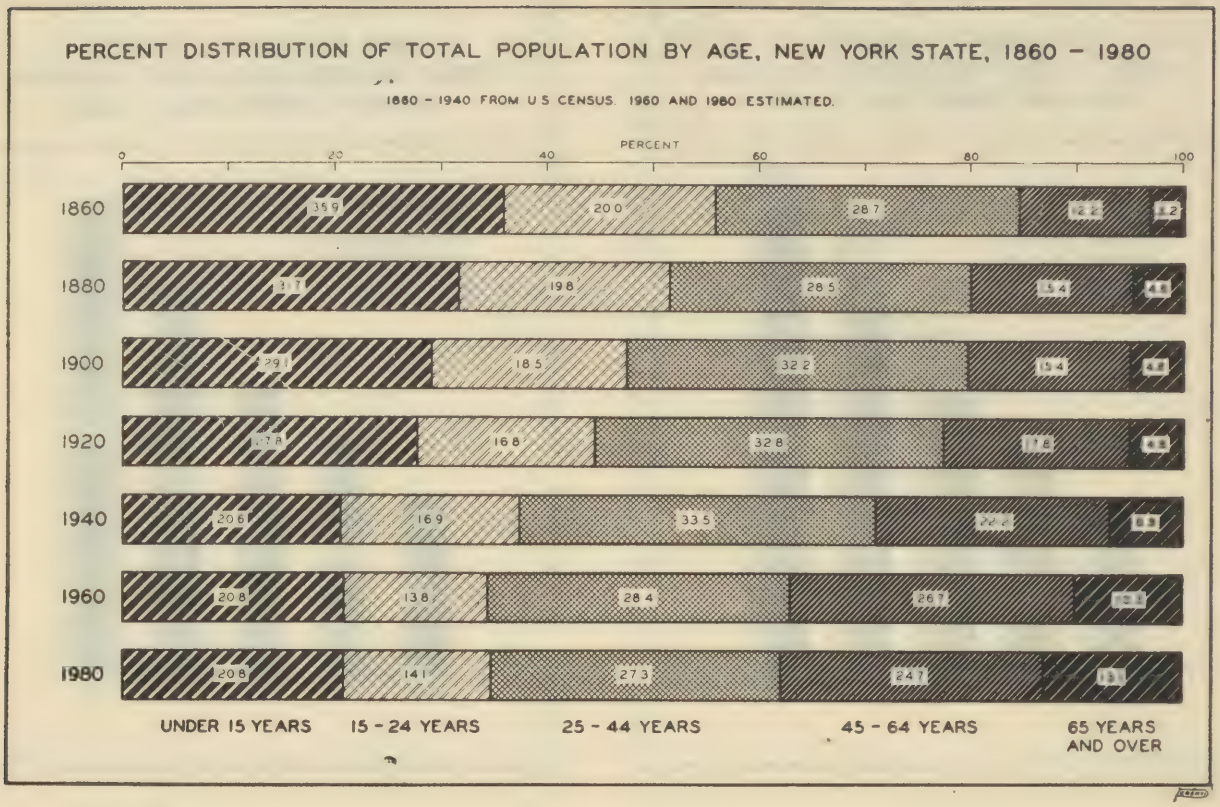
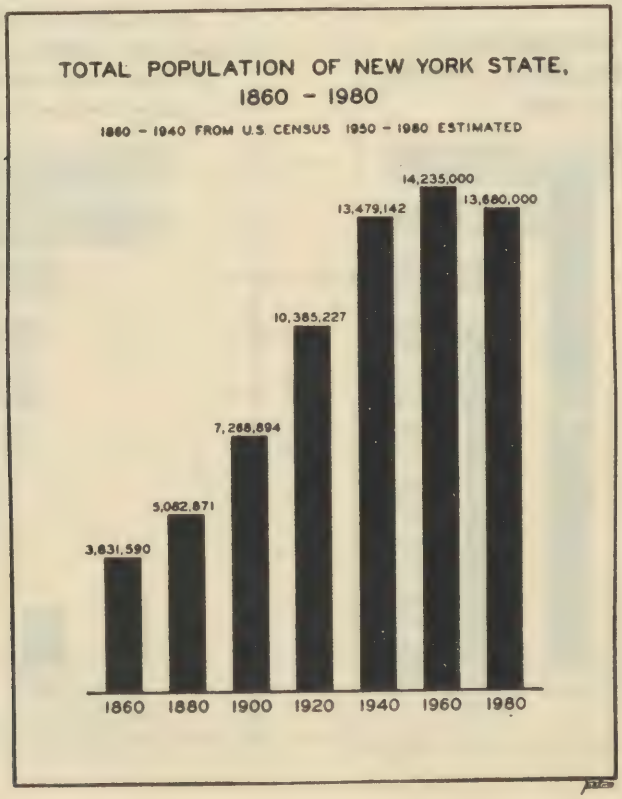


FIGURE 9.



(b) *Relation to dependency.* The National Health Survey showed that illness of all types occurred more frequently among persons on relief than among the self-supporting population. Acute illness was 50 per cent more frequent among families on relief than among families with incomes of $2000–$3000 a year; chronic illness, on the other hand, occurred twice as frequently in the relief group. This suggests that chronic-illness is an important cause of economic dependency. A study of the Commission, in cooperation with the Department of Public Welfare of Nassau County, of welfare recipients in 1944, showed that more than 37 per cent of clients receiving Old Age Assistance suffered from chronic illness, or more than double the expected prevalence in this age group. It is reasonable to expect that any program which furthers the prevention, improved treatment or medical rehabilitation of chronic illness will yield financial as well as human dividends by decreasing economic dependency from this cause.

Definition of chronic illness. For purposes of planning and discussion, it is necessary to define the conditions to be considered as precisely as possible. Data are available regarding two broad groups of chronically ill persons in New York State—the disabled and the non-disabled. The latter are defined as persons with some chronic illness sufficient to cause symptoms for three months or more during a year, but not sufficiently advanced to cause disability[1] for as long as seven consecutive days. Disabling chronic illness is defined as illness from specified chronic diseases, listed on page 25 of this report, Table 1, and sufficient to cause at least a week's disability. Actually the average disability per person in this group is approximately 14 weeks, or almost 100 days, in any 12 month period.

Prevalence of chronic illness in New York State: (a) *Non-disabling chronic illness.* It is estimated that chronic illness causing symptoms for three months or more during the year, but not yet causing significant disability, affects approximately 14 out of every 100 persons in New York State, or almost 2,000,000 persons.[2] These are the persons who would benefit most from a program of public education, improved and expanded facilities for health examinations and the application of personal preventive medicine in its broadest sense, as applied by the modern practicing physician. Many of the persons in this group are under the care of a physician; few require hospital or institutional care. An unknown but doubtless a con-

[1] Inability to pursue one's occupation or usual activities.

[2] This estimate is based on corrected data from the National Health Survey, applied to the estimated population of the State in 1946.

TABLE 1.—*Diagnoses Classified As Chronic for the Purpose of Estimating the Prevalence of Chronic Illness in New York State*

Cancer, all sites
Nonmalignant tumors and tumors, nature unspecified
Acute rheumatic fever
Chronic rheumatism, arthritis and gout
Diabetes mellitus
Diseases of the thyroid gland, including all types of goiter and parathyroid diseases
Anemia, all forms
Other general diseases
Cerebral hemorrhage (apoplexy), embolism, thrombosis
Other paralysis
Chorea
Neuralgia and neuritis
Nervousness, neurasthenia and nervous breakdown
Diseases of the eye and blindness
Diseases of the ear and deafness
Diseases of the heart and coronary arteries
Arteriosclerosis and high blood pressure
Hemorrhoids
Varicose veins or ulcer, varicocele
Sinusitis
Asthma
Hay fever
Ulcer of the stomach or duodenum
Hernia
Diseases of the gallbladder and liver
Nephritis and other diseases of the kidney, including kidney, unspecified
Diseases of the bladder, urethra and urinary passages
Nonvenereal diseases of the male genital organs
Cysts of the ovaries, uterus and tubes
Eczema
Diseases of the bones and joints, except tuberculosis and rheumatism
Lumbago, myalgia, myositis, stiff neck and other muscular pains
Other diseases of the organs of locomotion
Congenital malformations and other diseases of early infancy
Other and ill-defined causes, including senility

siderable number resort to self-medication or to irregular non-scientific types of care. A chronic illness program would benefit this group through public and professional education, increasing the awareness of the patient as to his need for preventive care and its possible benefits and providing sources of postgraduate and undergraduate education to the medical profession in these aspects of chronic disease care.

(b) *Disabling chronic illness.* Disabling illness due to chronic disease is estimated to affect 55 out of every 1,000 persons in New York State. This represents 738,000 persons on the basis of the population enumerated in the 1940 census, or 772,000 persons on the basis of the estimated 1946 population. Chronic illness disables each of these persons for an average of almost 100 days during each year. At least one-third require admission to a general hospital and approximately one-fourth are permanently disabled. Many are in need of or might benefit from intensive efforts at medical rehabilitation. It is among this group of over three-quarters of a million persons that the most urgent problems of home care, hospital care and other institutional care arise. (Table 2.)

TABLE 2.— *Chronic Illness in New York State, 1940* [a] [b]

PERSONS AND DISABILITY	New York State	New York City	Rest of State
Number of persons with chronic illness	738,000	393,000	345,000
Number per 1000 population	55	53	57
Number permanently disabled per 1000 population	11.7	11.0	12.4
Days' disability (per year)	73,600,000	39,200,000	34,400,000
Average days' disability per illness	99.7	99.7	99.7

[a] Based on published and unpublished data of the National Health Survey, adjusted to and corrected in accordance with studies in New York State.
[b] Excludes any illness which did not cause at least seven consecutive days disability.

NEEDED SERVICES AND FACILITIES FOR CHRONIC ILLNESS

The problems of chronic illness comprise a substantial part of, and are closely related to, the problem of medical care as a whole. However, even in normal times, and especially in the face of the present shortage of physicians, nurses and hospital beds, chronic illness excites less interest and commands less attention and help than the more dramatic and urgent needs of acute illness. In addition, the chronically ill are least well able to pay their own way, for several reasons. A substantial proportion (24 per cent) of the chronically ill are past the usual maximum working age of 65 years. Chronic illness of itself depletes earnings and lessens working ability; and at the same time, because of its long duration, it is more costly than acute illness. The chronically ill need more and can pay less than the acutely ill.

To these barriers in the way of obtaining the best care possible for the chronically ill, there is the added obstacle that, by and large, there has been, in the past, little planning for services or for hospital and institutional beds for this type of illness. It has been said that the problem of the care of chronic illness is almost as much neglected today as that of mental illness was a hundred years ago.[3]

The lack of proper facilities for the care of chronically ill persons daily confronts physicians, social workers, hospital and welfare administrators and, of course, the chronically ill themselves. A striking example of this lack is found in the fact that chronically ill patients who can and do pay for their care are today seeking admission to public homes, most of which are not prepared or staffed for this type of care. To meet the demand, nursing homes have multiplied. Except in a few localities, they are totally uncontrolled, for the most part do not furnish adequate care and yet must be used for lack of other facilities. Even these are not enough and hospitals find themselves forced to retain patients who no longer need their care and, as a corollary, are unwilling to admit chronic disease patients for a needed short period of hospitalization because of the likelihood that, at its close, they will be unable to discharge them. It is not surprising then, to find that patients remain at home who should be in a hospital or related institution. Indeed, in not a single aspect of care—in the home, hospital or related institution—are facilities for the chronically ill adequate today.

Types of facilities needed. The chronically ill person may need care at home, in a hospital, or in an institution intermediary in facilities between hospital and home, such as a nursing home, convalescent home, home for the chronically ill or a supervised boarding home. The type of facility best suited for the patient depends on the nature and severity of his illness and on the resources available at home. Wherever possible, and in the best interests of the patient, care in his own home is to be preferred.

A program designed to improve the care received by chronically ill persons should include measures which would effect improvement in all three aspects of care—at home, in the hospital, or in the intermediary type of institution—and would consist, in broad outline, of the following:

1. *Hospital care:* to be provided in general hospitals as close to the patient's home as is feasible, in wards, wings or floors especially designated and designed for long-term hospital care.
2. *Special hospital care:* For each region[4] of the State a specialized chronic disease hospital, in close physical and working association with a medical school

[3] *The Care of the Mentally Ill in New York State* (Report of Moreland Commission), Albany, 1944, p. 88.
[4] The regional concept of planning for care of the chronically ill is discussed on page 31.

and research center. Each Chronic Disease Hospital Center would serve the general hospitals of the region in at least two ways: (a) for referral of problem cases *from* the general hospitals; (b) by providing consultation and teaching services *to* the general hospitals.

3. *Home care:* Visiting bedside nursing care; housekeeping aid; and medical supervision by local practicing physicians, with provision for medical consultation, as needed, from the teaching medical centers.
4. *Intermediary care:* For patients who do not need hospital care, but cannot be cared for properly at home, or have no homes of their own, two types of intermediary care are desirable. One group requires the kind of sheltered care which could be provided in supervised boarding homes, foster homes or homes for the aged. The other group needs continued professional nursing or attendant care. The latter could be provided in such facilities as public home infirmaries, convalescent homes, proprietary nursing homes, infirmaries of homes for the aged and public and voluntary nursing homes operated by, or in close association with, general hospitals, provided that these institutions meet required minimum standards of physical facilities and nursing and medical care.
5. *Provision for integration of the program:* Integration is needed to ensure periodic review of cases, ready transfer from one type of care to another, as occasion arises, adequate follow-up and public and professional education. Responsibility for over-all integration and continuous planning should rest in a State-wide agency operating through the regional centers.

Outstanding needs and deficiencies in the care of the chronically ill are the lack of hospital beds and of beds in nursing home types of institutions. These needs are matters of common knowledge but they are most evident to those whose daily work brings them in contact with the chronically ill—physicians, nurses, hospital administrators, commissioners of public welfare.

An overwhelming majority of administrators of general hospitals and of public welfare commissioners, in response to an inquiry by this Commission, stated that present hospital and other institutional facilities for chronically ill persons who cannot be cared for at home are inadequate. (See pages 82 to 83.) Because of lack of facilities, it is often not possible to care for the chronically ill patient in the place best suited for him. A survey made in Rochester[5] in December 1944 and January 1945 showed that, of 464 chronically ill persons living at home, or in boarding homes, 77 required hospital or nursing home care and 106 needed at least supervised boarding home care. In other words, almost 40 per cent of the chronically ill persons at home were considered to be receiving inadequate types of care.

[5] Made by the Visiting Nurse Association of Rochester and the Division of Old Age Assistance of the Monroe County Department of Public Welfare, for the Rochester Council of Social Agencies.

Need for hospital and institutional beds. It is estimated that the minimum need for beds in hospitals and related institutions of high quality for the chronically ill is 27,000 beds for the State outside of New York City. This is equivalent to 4.5 beds per 1000 population. This is believed to be a conservative estimate and one which may require considerable revision on the basis of further study. The relative proportions of these beds which should be in hospitals, in nursing homes and in other related institutions will depend on the extent to which hospitals enter into the field of chronic care and the availability of good facilities for nursing care outside of hospitals. Past experience would indicate that approximately one-third, or from 1.5 to 2.0 beds per 1000, should be in hospitals and 2.5 to 3.0 beds per 1000 in the related type of institution.

The extent to which these needs are being met by present facilities, and the indicated need for additional hospital and nursing home beds for the chronically ill, will vary with local conditions and must be studied separately in each community and region.

In order to meet the need, both for hospital facilities and for nursing home facilities, general hospitals should give serious consideration, first, to establishing chronic disease pavilions or wings and, second, to the construction of nursing home type facilities in close physical relationship to the general hospital. It is highly probable that some form of State or Federal assistance will be required to assist general hospitals in establishing and maintaining these facilities.

Need for Chronic Disease Hospital Centers. The hospital care of chronic patients can be undertaken in specialized chronic disease hospitals and in general hospitals. The former type of hospital is most feasible in large, urban centers where the number of chronic disease patients is so great that large well-equipped hospitals devoted solely to these patients are both medically and socially practical. This has been one of the developments in New York City, which has both a voluntary chronic disease hospital, Montefiore Hospital for Chronic Diseases, and a 1500-bed municipal chronic disease hospital, the Goldwater Memorial Hospital. In smaller communities, however, the full application of the principle of segregation of hospital care for chronic disease would require that such a hospital serve a large area, which would mean that most of the patients would have to be hospitalized at considerable distance from their own homes. Other, equally cogent, reasons for keeping long-term chronic disease hospital care in general hospitals as much as possible are: that such an arrangement avoids unnecessary duplication of existing hospital facilities which can be used for both "acute" and "chronic" cases; that it provides opportunities for experience in the care of chronic disease to the staffs of general hospitals; that it affords the most ready means of trans-

fer to and from the "acute" and "chronic" sections of the same hospital, when needed; and that it allows for greater flexibility in hospital planning by making it possible for future, unforeseen shifts in the relative proportions of acute and chronic patients to be met by changing the designated use of either "chronic" or "acute" beds in the same hospitals.

However, certain aspects of the hospital care of chronic disease require the organization, facilities and staff of a specialized chronic disease hospital. Such a hospital can provide concentrated experience with respect to problems and cases which would not be found frequently enough in any one general hospital; it can develop special skills in its attending staff regarding chronic disease care; it can carry on research in the cause, prevention and improved treatment of chronic disease; and it can furnish material for undergraduate and postgraduate teaching of physicians and nurses.

To secure these advantages, while preserving the principle of providing the bulk of care in general hospitals, there is needed in each region a small, specialized chronic disease hospital for research, teaching and consultation. Such a hospital should be attached to a medical school and large general hospital, sharing the staff and some of the physical facilities of each. It need not be larger than 150 beds in order to fulfill the purposes for which it is intended.

The Chronic Disease Hospital Center in each region would serve the important function of stimulating interest in the care of chronic illnesses in the general hospitals of the region. The need for providing such stimulation of interest is emphasized by all authorities on chronic illness. The Hospital Center could effect this by providing visiting consultants, conducting seminars and teaching ward rounds, and furnishing lecturers to general hospital staff and county medical society meetings throughout the region.

Home care. The majority of the chronically ill can, with proper aid, live comparatively normal and useful lives at home. The extent to which this is possible depends, in part, on the availability of such services as home nursing care and housekeeping aid. Present facilities for providing bedside nursing care at home vary widely in different sections of the State. In 1944, visiting nurses employed by visiting nurse associations and various life insurance companies provided home nursing service, to the extent of an average of 121 home visits per 1000 population in 13 counties. However, in 13 other counties there were enough nurses to provide but 61 home visits per 1000 population, in 13 other counties only 26 visits per 1000 were provided and in 18 counties no beside nursing agencies of this type existed. To some extent public health nurses are called upon to supply this type of service, but the number of such nurses at present employed is entirely too small to provide bedside care in addition to the other duties of a public health nurse. It is estimated that, in order to provide both public health and bedside nursing service in the home, there should be one nurse for each 2000 persons. This would call for the employment of over 1200 additional nurses in the upstate area. To provide the 44 counties which had less than 120 bedside home nursing visits per 1000 population with nurses sufficient to bring the visits up to this figure would require 222 additional nurses.

Full or part-time housekeeper service will often permit care at home of a chronically ill patient who otherwise would require institutional care. Such services should be organized in each community by local departments of welfare and operated in close cooperation with the home nursing service, so that the two types of service will supplement and not replace each other.

Care of the chronically ill between hospital and home. The care of the chronically ill person not requiring hospitalization who cannot, or should not, remain at home poses the most difficult problem in this field. Some type of facility is needed for those with chronic illness who have no home, who cannot live alone, whose homes cannot provide proper care, whose presence in the home would damage its spirit, whose illness requires constant attendance—in short, who need care "between hospital and home."

Present facilities used for these patients include public homes, voluntary and proprietary nursing homes, voluntary and proprietary homes for the aged and chronic sick, boarding homes and foster homes. Their aggregate is insufficient to house these patients and, in consequence, many are found in facilities inadequate for their proper care.

In the State, exclusive of New York City, there were (on May 1, 1946) 6,139 beds in the proprietary nursing homes certified by local departments of public welfare for use by persons receiving public assistance, and 3,002 infirmary beds in public homes. (See Table 3.) These two types of institutions alone provide 1.5 beds per 1000 population. However, it is well known that the facilities and quality of care in these institutions are often far from adequate.

TABLE 3.— *Public Home Infirmary and Nursing Home Facilities, New York State, Exclusive of New York City*

FACILITY	Beds	Days of Care Per Year
Total	9,141	3,336,465
Public home infirmary [a]	3,002	1,095,730 [b]
Nursing home [c]	6,139	2,240,735 [d]

[a] Based on data from *Directory of Institutions for Adults*, New York State Department of Social Welfare, 1943, and revisions for 1944.
[b] 100% occupancy.
[c] Nursing homes certified by local departments of welfare, as of May 1, 1946.
[d] 90% occupancy.

Public homes, originally intended and built for the housing of able-bodied or well indigent persons, have been used to an increasing extent in recent years for the care of persons with chronic illness or dis-

TABLE 4.— *Reasons for First Admissions to Public Homes, New York State, Exclusive of New York City, 1938* [a]

REASON FOR ADMISSION	TOTAL	
	Number	Per Cent
Total	5,252	100.0
Prolonged residence for disability due to chronic illness or age	2,592	49.5
Temporary medical care	1,670	31.8
Temporary shelter	970	18.4
Not reported	20	0.3

[a] New York State Temporary Legislative Commission to Formulate a Long Range State Health Program, "Physical Condition of Persons Admitted to County Homes," *Medical Care in New York State, 1939*, Legislative Document (1940) No. 91, page 184.

ability. Although information regarding the exact extent to which public homes in the upstate area are now occupied by chronically ill persons is not available, it is known that a large proportion are in this category. Recent studies in Illinois and Maryland have indicated that approximately four-fifths of the public home populations in these states were in need of continuous nursing service and medical care.[6] [7] In New York State a study made by the Commission of first admission forms, submitted to the State Department of Social Welfare by city and county public homes for 1938, showed that almost half (49.5 per cent) the admissions were for disability due to chronic illness or age. An additional 32 per cent of the admissions were for temporary medical care.[8] (Table 4.) Another study made by the Commission, in cooperation with the Nassau County Department of Public Welfare, showed that, in 1944, 70 per cent of the inmates of the county home in Nassau county were chronically ill.

Many public homes are now making plans for new construction or material remodeling. Therefore, it is important at this time to assay the probable future function of the public home in the care of the chronically ill and the suitability of present plans for an adequate fulfillment of this function. If they are to make proper provision for the chronically ill, public homes should plan to furnish care of high standard in facilities specifically designed for the purpose. Such facilities, which might well be termed public nursing homes, should admit patients of all economic strata, including those able to pay for all or a part of the cost of their care. This would mean that these facilities would take their place as public institutions, and not solely as institutions for the indigent. A trend in this direction is already evident in this and other states.[9] [10]

The ideal location for such a public nursing home would be near a general hospital, so as to provide ready access to its staff and facilities, when needed. Where a county or city general hospital exists, the public nursing home should be operated as part of this hospital. Where no public hospital exists, it should be operated in close affiliation with a voluntary general hospital, if possible.

Rehabilitation. Rehabilitation has been called the third phase of medical care—that which teaches the patient how best to live with his disability or disease and to earn his living in spite of it. This is a relatively new medical art. It developed improved techniques and demonstrated startling results during the war. The rapid application of the modern methods of rehabilitation to tens of thousands of permanently disabled civilians, and to the greater number who each year are partially disabled by chronic illness, is an important responsibility of all agencies, including the State, concerned with improvement of health. Medical rehabilitation requires special centers offering an integrated program including physical therapy, occupational therapy, psycho-social adjustment, and vocational training and guidance. There is need for centers of research in new methods of rehabilitation and in the development of improved devices to help handicapped persons extend their skills. There is need also for educational centers for training physicians, physical-therapists, occupational therapists, nurses, social workers, physical educators, recreational workers, teachers and vocational guidance specialists in this field. The Chronic Disease Hospital Centers would act in all three capacities—service, training and research—and would also serve as model demonstration centers providing leadership to communities which are interested in establishing smaller rehabilitation centers in local hospitals.

Aid in obtaining rehabilitative services for various types of handicap and for various special groups of the population is available under programs administered by several State agencies, including the Department

[6] State of Illinois, Committee to Investigate Chronic Diseases Among Indigents, *Interim Report to the Sixty-Fourth General Assembly*, June 7, 1945, page 9.

[7] Maryland Legislative Council, Research Division, *Report on Almshouses in Maryland*, April 1940.

[8] New York State Temporary Legislative Commission to Formulate a Long Range State Health Program, "Physical Condition of Persons Admitted to County Homes," *Medical Care in New York State*, 1939, Legislative Document (1940) No. 91, page 184.

[9] New York State Temporary Legislative Commission to Formulate a Long Range Health Program, "Care of the Chronically Ill: The Local Public Welfare Viewpoint", *Planning for the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects*, Legislative Document (1946) No. 66A. Summarized infra pp. 82 and 83.

[10] Connecticut, Illinois, Maryland and New Jersey, as follows:

(a) *General Statutes of the State of Connecticut*, 1945 Supplement, Chap. 147, Sec. 611h–615h.

(b) *Laws of the State of Illinois, Sixty-Fourth General Assembly, 1945*, Senate Bill No. 212 (approved June 13, 1945) and Senate Bill No. 213 (approved June 6, 1945).

(c) *Annotated Code of Maryland, 1943 Supplement*, Art. 43, Sec. 526–530.

(d) State of New Jersey, *Laws of 1940*, Chap. 119 (supplementing the "1924 Poor Law"); *Laws of 1939*, Chap. 263, and *Laws of 1946*, Chap. 175 (supplementing the "1931 County Referendum Law").

of Education (Vocational Rehabilitation), the Department of Health (Medical Rehabilitation), the Department of Social Welfare (Rehabilitation of the Blind) and the Division of Veterans' Affairs (Veterans). A special hospital, the New York State Reconstruction Home, for the care and rehabilitation of patients with cardiac and orthopedic disease, is maintained by the State Department of Health at West Haverstraw. These programs can function only to the extent that facilities for providing rehabilitative service are readily available. There is a widespread dearth of such facilities and of professional personnel trained in the medical, physical, psychological and social aspects of rehabilitation. Existing programs should be extended to include provision for training professional personnel and for organizing rehabilitation units in general and special hospitals. (See page 38.)

The need for research in chronic disease. Some of the most important causes of disability and death have received little attention in the form of fundamental research. Without such research no progress toward better methods of prevention and treatment can be made. There is general agreement on the need for greatly expanding the number and extent of scientific investigations into the causes and treatment of such widely prevalent chronic diseases as hardening of the arteries, high blood pressure, rheumatism, arthritis and heart disease. Less common but important disabling conditions, such as cerebral palsy, multiple sclerosis and other diseases of the brain and spinal cord, demand intensive study in order to improve the ability of medical science to help the victims of these diseases. There is need also for research into better methods of home and hospital care for chronic patients, which can be applied in general hospitals and institutions and in the patients' own homes, by the physicians who are responsible for their care. There is need for research into improved methods of vocational guidance and training and in medical rehabilitation to fit chronic disease patients for as active and useful lives as is compatible with their disability.

Such research requires the type of staff and facilities of a medical school and teaching hospital. New York City, in cooperation with two of its medical schools, has already established and is helping maintain such facilities as a part of its chronic disease hospital program. The need for such facilities in the State outside New York City has been stressed by the deans of the Schools of Medicine of the University of Buffalo, the University of Rochester, Syracuse University and the Albany Medical College. (See page 37).

There is probably no more effective single measure for attacking the problems of chronic disease and, in terms of ultimate returns, no better investment of State funds that could be made than that of supporting research in these problems at our centers of medical learning.

Preventive aspects of chronic disease. Although the causes of many of its major forms are obscure, there is evidence that chronic disease is often the result of a lifetime of emotional and physical stress and strain or the accumulated effects of infections, injuries or dietary deficiencies. To some extent, all improvement in hygiene and medical care and success in the prevention of acute disease in early life is effective in preventing chronic disease in later years. The resulting extension of the span of life, however, increases also the opportunity for finally developing some chronic ailment. If we cannot always prevent chronic disease from appearing ultimately, it is often possible to prevent or postpone its progressive course and disabling effects.

This type of prevention requires early diagnosis or discovery of the first stages of chronic disease for maximum effectiveness. The war demonstrated that large numbers even of young men had some chronic physical or emotional disease or defect. The periodic examination of infants and of school children to discover incipient or early disease is a well established procedure. There remains to be developed some means for extending such examinations to include adults of all ages. This would constitute the most effective single step toward prevention or mitigation of the disabling stages of chronic disease.

Periodic examinations, to be of maximum value, should include examinations of the blood and urine, X-ray examination of the chest and other laboratory and special examinations which may be indicated by the age of the person examined or by the presence of certain symptoms. As demonstration projects, special health examination clinics may be held in general hospitals or conducted under the auspices of industrial plants or large business organizations. These clinics would be concerned only with the detection of chronic disease and defects and would refer persons to their own physicians or other appropriate agencies for any needed treatment. Ultimately, the techniques and the tested procedures and results of such projects will be reflected in a greater demand for such examinations in the offices of general practitioners of medicine.

As part of the broad program for the care of chronic illness, the preventive aspects of chronic disease through periodic examinations should be fostered through cooperation with county medical societies, general hospitals and practising physicians in providing facilities for such examinations throughout the State.

Special problems requiring study: (a) *Mental disturbances associated with old age.* An ever-present problem is that of providing suitable care for patients with mental or emotional disturbances associated with hardening of the arteries and other accompaniments of aging. Almost 40 per cent of new admissions to the State mental hospitals are for such conditions.[11] This type of mental disturbance may vary greatly, from instability and sleeplessness to hallucinations, episodes of violence and complete deterioration of the personality. The more severe forms obviously require

[11] For the year ending March 31, 1945, 38.9 per cent of new admissions to the State mental hospitals were for senile psychoses and psychoses with cerebral arteriosclerosis.

mental hospital treatment, but no specially designated institutions now exist for the milder forms which preclude home care and present great difficulties in providing for such patients in the average nursing home or similar institution. This is a special problem requiring separate study and it is recommended, accordingly, that such a study be undertaken, by an appropriate State agency or commission, to clarify the relationship of this problem to the chronic illness program.

(b) *Chronic alcoholism.* The excessive use of alcohol and its harmful effects is not, of course, a new problem but has only recently been generally considered and attacked as a form of chronic illness, rather than solely one of delinquent behavior. One of the extreme effects of chronic alcoholism is mental deterioration requiring admission to a mental hospital, but the number of persons affected and the damage done by this form of addiction is much greater than indicated by such admissions. The problem involves the psychological and medical treatment and rehabilitation of large numbers of men and women with various degrees of dependency upon alcohol and varying stages of physical and social damage from its use. Outstanding needs would seem to be facilities for intensive study and treatment of such persons and special clinics for their continued treatment and guidance. The precise relationship of this problem and of measures for handling it to the general program for chronic illness should be studied further by an appropriate State agency or commission.

THE PROGRAM IN OPERATION

The proposed program is based on the premise that local communities, agencies, medical personnel and facilities must bear the major responsibility for improving the care of the chronically ill, with the State providing leadership, an agency for bringing together the many different organizations concerned in this complex problem, and such special facilities and services as are needed to supplement and round out local resources.

Administration. Since this is a State-wide program, involving relationships with many State and local agencies, and the continued expenditure of State funds, a State agency should be designated to assume responsibility for its operation. The immediate task of the State agency would be to initiate the program and provide leadership and impetus for its continued development, which necessarily will require a considerable period. Local and regional conditions should be studied in cooperation with local agencies to determine specific local needs. While planning for long-range objectives, the pressing necessity of helping existing agencies and institutions to improve the quality of their facilities and care today must be met. The State agency would proceed with plans for the building of Regional Chronic Disease Hospital Centers, and for their staffing and operation, in conjunction with medical school faculties and teaching hospitals. Its long-range objective would be to assist in developing in each area a coordinated and effective locally administered program of services and facilities of high quality for the early diagnosis, treatment and care of chronic illness; to stimulate and carry on research and professional education; to inform the public regarding means of preventing and mitigating the effects of chronic disease; to evaluate continually the effectiveness of the program and to ascertain and make plans for remedying its deficiencies.

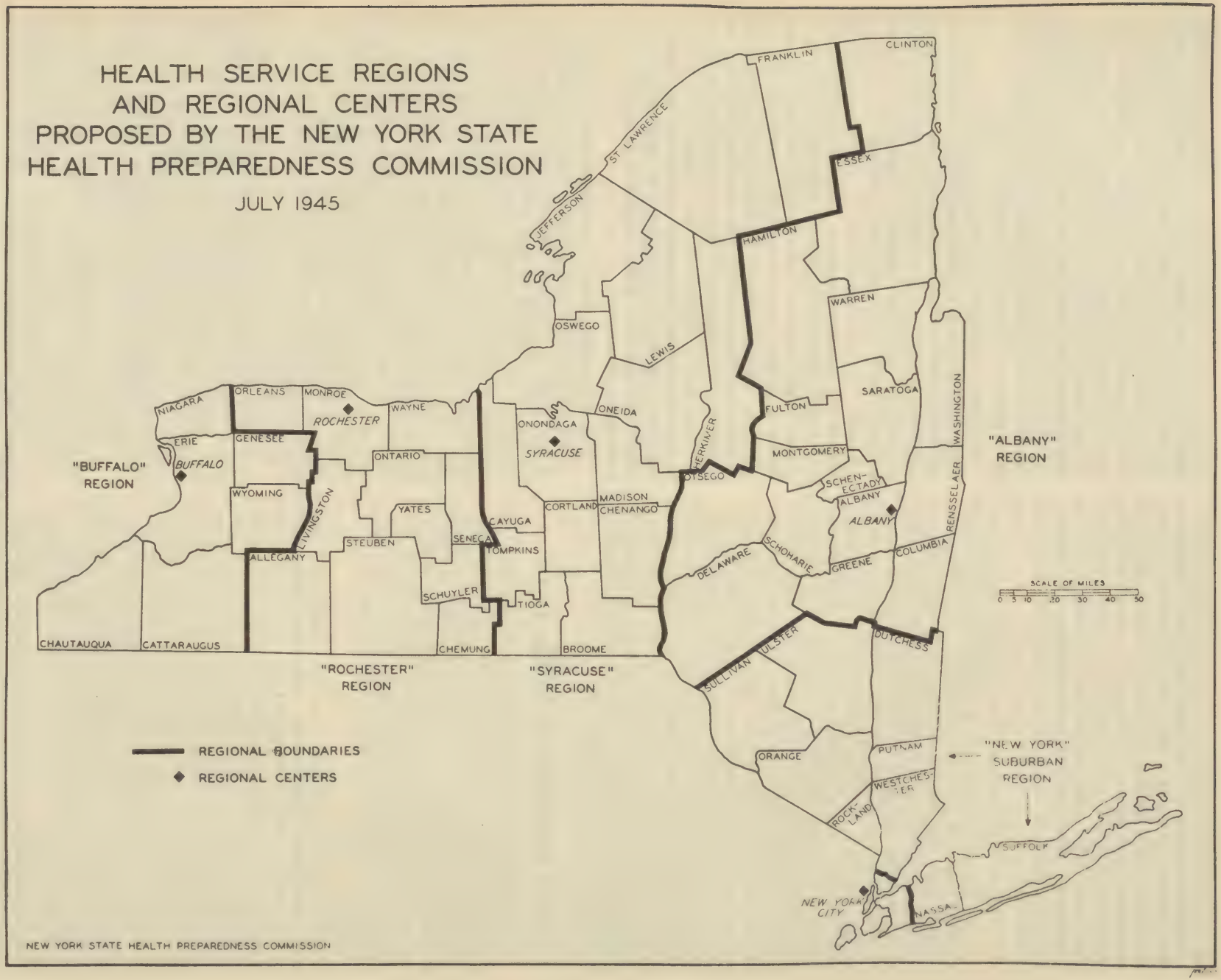
Advisory committees. Because of the importance of chronic illness as a major segment of medical care, and the many voluntary and non-official organizations and agencies which are concerned with its various phases, the State administrative agency should have available the assistance and counsel of a State Advisory Committee composed of persons representative of the medical, nursing, hospital, public health and social welfare fields, as well as broad public groups, such as labor, industry and religious bodies. Similar advisory committees for each of the five regions of upstate New York should also be appointed. These committees would serve the three-fold function of assisting the designated State agency in developing the program for the care of the chronically ill in their respective regions, transmitting to the State agency the views and needs of the groups which they represent and interpreting to their respective groups the program as it develops.

Regional organization. Previous studies of the Commission have clearly shown that, from the standpoint of planning for medical facilities and services, New York State, exclusive of New York City, may be subdivided into five natural geographic regions, as depicted in Figure 10.[12] These regions, suggested by the Commission in July 1945, have been adopted by the New York State Joint Hospital Board as a basis for its planning for expansion of general hospital facilities.[13] These regions were not arbitrarily determined but are based upon existing usage and conditions with respect to such factors as transportation facilities, location of physicians, natural flow of population seeking hospital care, population flow to trading centers and the present location of medical centers and medical teaching institutions.

In keeping with the purpose of regional planning, each of these regions should comprise, to the greatest extent possible, a comprehensive and self-sufficient unit capable of providing for the people within its boundaries all the various kinds of medical care and professional service which may be needed. Certain highly specialized types of medical service require personnel and facilities to be found, as a rule, only in

[12] New York State Commission to Formulate a Long Range Health Program, 1943–1944 *Report,* Legislative Document (1944) No. 56A.

[13] New York State Commission to Formulate a Long Range Health Program, *Planning for the Care of the Chronically Ill in New York State—Regional Aspects,* Legislative Document (1946) No. 78A.


HEALTH SERVICE REGIONS
AND REGIONAL CENTERS
PROPOSED BY THE NEW YORK STATE
HEALTH PREPAREDNESS COMMISSION
JULY 1945
FRANKLIN
CLINTON
ST LAWRENCE
ESSEX
JEFFERSON
HAMILTON
WARREN
OSWEGO
LEWIS
SARATOGA
WASHINGTON
NIAGARA
ORLEANS
MONROE
ROCHESTER
WAYNE
ONEIDA
FULTON
ONONDAGA
SYRACUSE
HERKIMER
ERIE
GENESEE
BUFFALO
ONTARIO
MONTGOMERY
"BUFFALO"
REGION
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ALBANY
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REGION
WYOMING
LIVINGSTON
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CORTLAND
MADISON
CHENANGO
OTSEGO
RENSSELAER
CAYUGA
SENECA
TOMPKINS
STEUBEN
ALLEGANY
DELAWARE
SCHOHARIE
GREENE
COLUMBIA
SCHUYLER
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NEW YORK
CITY
NASSAU
REGIONAL BOUNDARIES
REGIONAL CENTERS
NEW YORK STATE HEALTH PREPAREDNESS COMMISSION

large cities containing medical teaching centers. Such natural medical centers and medical teaching centers, designated as "Regional Centers", already exist within each of the upstate Regions, with the possible exception of the New York Suburban Region, which has no medical school within its borders and which consequently would probably look to New York City for such teaching and research services as would require the facilities and staff of a medical school. New York City is itself, of course, a self-contained unit from the standpoint of medical care, so that it constitutes, in effect, a sixth region.

The regional concept, as applied to the chronic disease program, would mean that, with the exceptions already noted, the chronically ill patient in each region would not need to go beyond the boundaries of that region in order to obtain the full range of services and facilities which his condition may require.

Regional Chronic Disease Hospital Centers. The mainspring of the organized program in each region would be the Chronic Disease Hospital Center of at least 150 beds, to be built, equipped and maintained by the State. In order to secure the professional and technical advantages of already existing medical facilities of high quality, the Center should be located in close proximity to, and operated by contract with, the medical school and teaching hospital located in the Regional Center. The professional staffing and operation of each Center would be entrusted, as far as possible, to the faculty of the medical school with which it is associated. Each Hospital Center would have specialized diagnostic and treatment facilities and conduct teaching and research in chronic disease problems. It would accept patients referred by physicians from any point in the Region, under admission policies designed to insure that the Center would fulfill its functions of providing special service and conducting research, and not become bogged down in routine care which could be obtained in other hospitals and institutions. Each Center would provide consultation service to physicians and medical institutions within the Region. By formal affiliation with other hospitals in the Region, specialists from the Regional Center would visit these hospitals periodically for consultation and for teaching and demonstration of recent methods and advances in knowledge concerning various chronic diseases. Physicians, nurses and related professional personnel would be enabled, similarly, to visit the Regional Center for observation, training and instruction.

It is realized that the amount of hospital care which could be provided for the chronically ill in the proposed Regional Chronic Disease Hospital Centers would furnish only a small portion of the total hospital days of care required for the chronically ill in the upstate area. Of the estimated minimum of 1.5 hospital beds per 1000, or 9,300 beds, needed for chronic disease, five centers of 150 beds each would comprise little more than eight per cent. This is in accordance with the aim of the proposed program, to retain the hospital care of chronic illness to the greatest possible extent in the local general hospitals throughout the State. The Chronic Disease Hospital Centers would greatly further this aim by providing such highly specialized personnel and facilities as are needed to supplement the general hospital facilities for the chronically ill. The average length of stay of patients in the Chronic Disease Centers for the special type of service provided there probably would be comparatively short, enabling a relatively large number of patients to obtain the benefit of the Centers' care.

In view of its teaching and research functions, the Chronic Disease Hospital Center would accept appropriate cases regardless of economic status, but patients able to pay for care, in whole or in part, would be expected to do so. A small percentage of beds might be made available for private patients, who were in need of the Center's special facilities or who presented problems within the scope of its research program.

For the counties of the New York Suburban Region, the services of the Chronic Disease Hospital Center might be provided by a new hospital, to be affiliated with a medical school in New York City; or by contract with the City of New York, or by contract with a voluntary teaching hospital and medical school in New York City. Because there is no medical school within the New York Suburban Region, determination of the best plan for providing this service for this Region requires further study.

For New York City proper, it is proposed that the State extend support to the chronic disease hospital program already initiated under the New York City Department of Hospitals, by paying for the maintenance of a number of chronic disease hospital beds at least equal to the total of those in the proposed Chronic Disease Hospital Centers for the five upstate regions.

Care in general hospitals. The bulk of the hospital care needed for the chronically ill would be provided in general hospitals close to the patients' own homes, preferably in wings, wards or floors of such hospitals, or in buildings close by. General hospitals would be professionally affiliated with their respective Regional Hospital Centers, could refer patients to these Centers for special study and would receive the benefit of advice and guidance from the Centers, upon request. To stimulate the general hospitals to provide beds for the chronically ill, special consideration would be given in the allocation of State and Federal funds for aiding hospital construction to projects which provide specially designated facilities for the chronically ill in general hospitals. It is further hoped that general hospitals which contemplate building solely with their own private fund, might also include in their plans beds for the chronically ill.

Home care. The development of additional home bedside nursing and housekeeping aide services would depend upon local interest and the rapidity with which nursing and housekeeping aide personnel could be recruited. Responsibility for planning and supervis-

ing additional home nursing services might well rest in the local departments of health, as part of the expanding county and city health department programs already initiated by recent legislation, or, in the absence of a county health department, as part of an expanded public health nursing program under local auspices. Additional home nursing care could be purchased from existing non-official agencies, where these exist. In many areas, the official agency will need to supplement care given by non-official nursing agencies, in order to avoid duplication of effort, such as having several nurses visit the same home.

In planning and providing home nursing services, full use should be made of ancillary personnel, such as practical nurses and nurses aides, to the extent that such personnel can be used for duties which do not require the training and experience of a registered nurse. Such ancillary personnel should always be under the supervision of a registered nurse and should not constitute the sole nursing service made available in a community program. All nursing service should be under the direction and supervision of a physician.

Providing home nursing care may be considered a community responsibility, with payment for services by the patient made on a voluntary basis, rather than on the basis of a means test. This policy would have the important effects of removing any stigma of indigency from the service, helping maintain its quality, eliminating the cost of applying the means test and probably lowering the net cost to the community.

Rehabilitation. There is need for expansion of facilities for the rehabilitation of disabled and chronically ill persons. Immediate steps which could be taken are: (a) in various general hospitals throughout the State, beds could be designated for the use of patients in need of rehabilitation; (b) trained physical therapists (one for every ten beds) and other needed professional personnel could be provided temporarily by the State; (c) the services of available professional personnel trained in rehabilitation could be secured on a per diem or fee for service basis paid for by the State; (d) the State could provide funds for training local physicians and other professional personnel in rehabilitation methods. These measures would serve to create widely scattered nuclei out of which could grow a more comprehensive program supported by local agencies exploiting the enormous economic and social advantages which modern methods of rehabilitation now offer to the disabled and chronically ill. Such a comprehensive program could include: (a) for rural areas, small travelling clinics, serving chiefly for case-finding, evaluation of rehabilitation problems and providing consultation to the communities' physicians, (b) in smaller centers of population, such as cities of 25,000, rehabilitation units in one or more existing hospitals, supervised by an experienced physician and with basic personnel consisting of an occupational and physical therapist, (c) for larger centers, such as cities of 100,000, a rehabilitation unit having the services of a psychologist, social worker, vocational adviser in addition to the therapists, (d) in Chronic Disease Hospital Centers, rehabilitation units capable of handling any type of rehabilitation problem, (e) a program of public and professional education, including education of physicians, nurses and social workers in the possibilities of rehabilitation, (f) research in impoved methods of rehabilitation.

The role of the practicing physician. The practicing physicians throughout the State will always bear the full brunt of responsibility for the care of chronic illness. The major aim of the program is to aid them in meeting this responsibility. The early diagnosis of chronic disease, the care of the ambulatory and homebound chronically ill, as well as the bulk of care in general hospitals and supervision of care in nursing homes and related institutions, rests with the practicing physician. The proposed program is designed to assist him by making available more adequate hospital and other institutional facilities by providing him with consultation services, when needed, and by furnishing, in the Chronic Disease Hospital Centers, facilities for referring problem cases for special diagnostic treatment or rehabilitation services. The proposed program would stimulate the interest of the practicing physician in the medical problems of chronic disease, affording him opportunities for undergraduate and postgraduate instruction, and bringing to him the fruits of the most recent research in this broad field of medical care.

Relation to existing programs and services. The proposed program would supplement and not in any way replace existing programs and services for specific forms of chronic illness. It should be emphasized, moreover, that no organized program now exists for the benefit of the great majority of the chronically ill. The State Department of Health now has under way expanded programs for the control of tuberculosis, for medical rehabilitation of the physically handicapped and for aiding in the improvement of facilities for the care of cancer patients. With the possible exception of the tuberculosis program, each of these would benefit from the facilities and services which the program here proposed would foster. All three of these programs would cooperate in the research aspects of the proposed program. Authorities in the field of cancer have long pointed to the need for increased hospital, institutional and home care facilities for the care of advanced cancer patients. Although the cancer problem is so large in terms of the number of patients affected that it is probable that additional facilities may be needed, those provided by the present proposed program, coupled with urgently needed expansion of the Roswell Park Memorial Institute, would aid in meeting pressing immediate needs in this field of medical care.

Any program for improving the care of the chronically ill involves problems and services now within the sphere of several departments of the State, including Health, Social Welfare, Mental Hygiene and

Education. An important task of the State agency designated to administer the proposed program, therefore, would be to obtain the cooperation of these, as well as other official and voluntary agencies, in securing coordinated and integrated effort for meeting the needs of the chronically ill.

State aid for care in hospitals and related institutions. No program for the care of the chronically ill can be fully effective as long as patients either fail to take advantage of the services available or, wishing to use them, are precluded from doing so because of inability personally to pay for care. Therefore, treatment of the latter patients will depend upon their receiving medical, hospital and related institutional care promptly at public expense.

Care in general hospitals for persons unable to pay is now a local financial responsibility, except that the State reimburses if the patient is a recipient of Old Age Assistance, Aid to Dependent Children and Aid to Blind or is a State Charge. While the State reimburses on the cost of care of recipients of public relief in proprietary nursing homes, the total cost of care in the public homes, including their infirmaries, is borne by the locality.

The effective development and operation of the program proposed for the care of the chronically ill would necessarily increase expenditures for local services, as it would involve the maintenance of public nursing home facilities of high quality, and a more liberal acceptance of public responsibility for the care of the medically indigent chronically ill. Under the present scope of State reimbursement, most of this cost would fall upon the localities. This would place too great a burden on the localities and clearly indicates the need for state aid.

The State has found it necessary to relieve the localities of all or part of the financial costs of the existing programs for the care of two major chronic diseases, namely, mental disease and tuberculosis. In the former, the State carries the total cost for patients unable to pay for care and, in the latter, approximately half the cost for all patients, regardless of economic status.

No program involving special efforts in the field of prevention, early diagnosis and treatment of disabilities of long duration can be operated effectively by the localities without State financial participation. If the present system of State welfare reimbursement were expanded to include the care of all the publicly dependent and medically indigent chronically ill in hospitals and in publicly operated facilities of the nursing home type which meet minimum standards, the localities would then be able to do their part in providing promptly the variety of care best suited to the patients' needs.

ESTIMATED COSTS

On the basis of present day costs (estimated at 50 per cent above those in 1940), construction of five Regional Hospital Centers for chronic disease of 150 beds each is estimated to involve a State capital expenditure of $9,000,000, and a gross annual operating cost to the State of $2,190,000. This does not make allowance for an estimated income from patients of approximately 20 per cent of the gross operating cost. An exact estimate of the annual operating cost of supporting an equivalent number of chronic disease hospital beds for New York City residents could not be made until a plan had been submitted and accepted indicating the type of hospital service in New York City which is to be supported by the State. The amount of such support certainly would not exceed that of the total for the five Regional Hospital Centers. The annual budget for the designated State agency to administer the program is estimated at $100,000.

It should be pointed out that the Chronic Disease Hospital Centers, in addition to serving paying patients, would provide care to the chronically ill recipients of public assistance and the medically indigent who, if not cared for in these Centers, would be receiving care in some other hospital at public expense. The cost of research would constitute a new expenditure, but one which undoubtedly would pay for itself many times over. The rehabilitative services of the Centers will restore many persons to economic usefulness and, accordingly, increase the wealth, as well as the well-being, of our people.

Since the question of State reimbursement for hospital care generally and for care in public homes is now under study by two sub-committees of the Special Committee on Social Welfare and Relief of the Legislative Committee on Interstate Cooperation, it has not seemed advisable to attempt to make an estimate at this time of the possible cost of state aid for care of the chronically ill in general hospitals or for nursing home type of care which may be provided in local public facilities. The possibility that federal aid will be made available to the states for the medical care of the indigent further complicates the making of reasonably accurate estimates of the amount of state aid which would be required for this type of care.

SUPPORTING STATEMENTS

STATEMENT OF CONFERENCE TO DISCUSS THE NEED FOR AND MEANS OF FORMULATING A STATE PROGRAM FOR THE CARE OF THE CHRONICALLY ILL

The care of the chronically ill, exclusive of mental disease and tuberculosis, is a problem of grave proportions and gives every indication of becoming even more important because of the progressive aging of our population. New York City, recognizing the need for adequate medical care in this field, has provided hospital and custodial care facilities for the chronically ill, and is currently planning an extension of its program. However, this remains an unresolved problem in most counties and cities of upstate New York. Therefore, the more immediate consideration should be directed to its solution in these localities.

Representatives of the State Department of Health, the State Department of Mental Hygiene, and the State Department of Social Welfare, local public welfare officials, many practicing physicians, superintendents of general hospitals and recent studies emphasize the urgent need for more prompt and adequate medical care for chronically ill persons. Their number is increasing annually as the proportion of the State population in the upper age group rises. The general hospitals do not, as a rule, have sufficient beds to admit many chronic cases. Most county home infirmaries are neither built, equipped nor staffed to care properly for such patients. Yet the need is so pressing that a number of counties and cities are planning postwar construction of institutions to care for these individuals, generally without including in their plans provisions for adequate medical service.

For planning purposes, a chronic illness may be described as one of two to three months duration and having an indefinite prognosis. Half the current deaths are due to cardio-vascular-renal conditions, which are chronic illnesses. The National Health Survey and other studies indicate that there are approximately 177 chronically ill persons per 1,000 population, 11 of whom are disabled. This rate is doubled in the "under $2,000" income group. The chronically ill are of all ages but are most prevalent in the population over 45 years old. Incidence also varies with occupation and residence, urban and rural. These data are sufficiently applicable to New York State to warrant their acceptance as a guide in formulating a State program for care of the chronically ill, particularly since the need for ameliorative steps is so apparent.

The care of chronically ill patients, both ambulatory and bedridden, varies with individual medical need. The patients fall into three categories: (1) those requiring medical care for diagnosis and treatment; (2) those requiring chiefly skilled nursing care; (3) and those requiring only custodial or attendant care. Such care may be provided at home, in nursing homes or in institutions. It should be recognized that the place of care of the individual patient will vary, dependent upon his changing medical needs, and that continuous medical supervision is necessary regardless of the place, or consecutive places, wherein care is provided.

Care at home should include medical supervision, visiting bedside nurse and full or part-time housekeeper services as required, and adequate relief grants in cases of indigency. Nursing homes should be under State or State-local licensure and supervision. Institutional care of two types, active medical and custodial, should be provided. The active medical service can best be provided in a hospital for chronic diseases closely allied with a general hospital and a medical teaching institution of high quality. This hospital for chronic diseases should have a division for custodial care, although most of the custodial care might be provided in each county, or for a group of counties, by improved county home infirmaries under State supervision and with State reimbursement.

Care for chronically ill patients might best be developed on a regional basis in upstate New York. The number of counties comprising each region would depend upon the distribution of population, the availability of transportation, medical facilities and personnel of each area. The center of care for each region would be a hospital for chronic diseases closely related to a general hospital equipped with adequate diagnostic and therapeutic resources both as regards personnel and facilities, a teaching institution of high quality, the envisioned local custodial institutions, the home bedside nursing program, the practicing physicians' and the out-patient services within the region. If properly developed, this coordination would insure early diagnosis, a high quality of continuous medical care and utilize the maximum contribution that each institution and professional group could make to the welfare of the patient. This service cannot usually be provided in less populous localities because of the prohibitive per diem cost of a small operating unit and the limited number of highly qualified professional personnel. These factors would compensate for any disadvantage accruing to patients living at a distance from the hospital.

All patients medically eligible for hospital and custodial care because of chronic illness should be accepted. Those financially able to pay for part or all of their care should do so. To insure the quality of administration and care, flexibility, coordination and modification as indicated by advances in medical science and varying demands, the program should be supervised by an operating State agency.

Any adequate program for care of the chronically ill should incorporate and correlate the following:

1. Encouragement of medical research and medical education regarding the nature, causes and methods of retardation of chronic illness.

2. Establishment of institutions for the diagnosis and treatment of chronic illness, either incorporating adequate facilities and personnel for medical research and medical teaching programs or closely related to institutions where such programs exist.
3. Establishment of services to make possible the home care of chronically ill patients whose condition does not demand institutionalization.
4. Availability of expert guidance to practicing physicians. This is requisite to early recognition of chronic disease and a factor closely linked to its retardation.
5. Encouragement of medical service in smaller communities and rural areas.
6. Establishment of services for the economic and social rehabilitation of chronic patients able to profit from such a program.

Because of the urgent need for adequate care of the chronically ill, and the imminent possibility of structural expansion of some county homes and the likelihood of the establishment of some local programs for the care of the chronically ill, the following suggestions are made for the consideration of the Health Preparedness Commission:

1. The Health Preparedness Commission, in cooperation with the newly appointed Commission on Medical Care, should appoint a small committee of experts to make practical suggestions for formulating a State plan for the care of the chronically ill.
2. The Health Preparedness Commission should take steps to inform the proper State and local officials that consideration of the provision of state aid for the physical extension of county and local institutions for the care of the chronically ill and infirm should be deferred, and that county and local units of government planning to expand such facilities totally with their own financial resources should be urged to consider their programs in the light of recommendations and proposals to be made by the New York State Health Preparedness Commission.

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Herman G. Weiskotten, M.D.

September 21, 1944.

The New York State Health Preparedness Commission thanks the individuals who have prepared and approved the foregoing statement and records itself as concurring with the statement, amended as follows:

1. Item No. 6 should read: "Integration of nursing homes for the custodial care of the chronic sick with the general program for the care of the chronically ill," and present items No. 5 and No. 6 should become items No. 6 and No. 7.
2. The first suggestion, immediately above, should read: "The New York State Health Preparedness Commission should appoint a qualified physician, assisted by a small committee of experts, to formulate a State plan for the care of the chronically ill."
3. The second suggestion, immediately above, should read: "The New York State Health Preparedness Commission should notify the proper State and local officials concerned with providing and extending facilities for the care of the chronically ill of the intention of the Commission to formulate a State plan for the care of the chronically ill."

Approved as amended by:
New York State Health Preparedness Commission
December 8, 1944

STATEMENT OF THE SUBCOMMITTEE ON MEDICAL EDUCATION AND RESEARCH OF THE ADVISORY COMMITTEE ON PLANNING FOR THE CARE OF THE CHRONICALLY ILL

With the advancing conquest of many of the acute forms of illness and the steadily greater proportion of older people in our population, chronic diseases are assuming ever greater importance as health problems. We have long recognized and planned to meet the challenge of two chronic diseases—mental illness and tuberculosis. Active programs and campaigns are under way with respect to at least two others—cancer and infantile paralysis. There is awakened interest and awareness regarding the problem of chronic illness as a whole. Different though the various chronic diseases may be scientifically, they present many common features as problems in medical care, teaching and research. There is need for a concerted, rather than a piecemeal, attack on the entire group of chronic diseases, including heart disease, diabetes, arthritis, nephritis, hypertension and diseases of the nervous system, to name only the more common ones. There is need for an organized, continuous program of research; for expanded facilities for undergraduate and postgraduate teaching in prevention, treatment and rehabilitation; and for hospital centers which would carry on such teaching and research and also act as consultation and referral facilities for general hospitals.

In the City of New York such teaching, research and referral centers have already been established by the Department of Hospitals in association with the medical schools of New York University and Columbia University.

The Subcommittee on Medical Education and Research urges that similar centers be established for the upstate area, in association with the medical schools in Albany, Buffalo, Rochester, Syracuse and New York City. Such centers should be built and financed by the State and operated under the supervision of a designated State agency having responsibility for a broad program for the improved care of chronic illness. The staffing and professional operation of these centers should be entrusted, as far as possible, to the medical schools and the hospitals with which they are associated. This principle of joint operation of a hospital and research unit by a governmental unit and a teaching institution has been tried and proved workable for many years in Rochester, Syracuse and New York City. It combines the best features of both types of administration.

The Subcommittee wishes to emphasize that, without support by the State, both for construction and continued maintenance, there is little likelihood that the needed research and teaching centers for chronic disease would be created. The importance of chronic disease is such that the establishment of such centers is essential to any long term program for the improvement of the health of our people.

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Stockton Kimball, M.D., *Dean*
University of Buffalo, School of Medicine
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January 22, 1946

STATEMENT OF DR. HOWARD A. RUSK ON MEDICAL REHABILITATION

Because of his leadership and outstanding achievements in advancing the art and science of medical rehabilitation, Dr. Howard A. Rusk, Chairman of the Department of Rehabilitation and Physical Medicine, New York University College of Medicine, was invited by the Health Preparedness Commission to present his views regarding the rehabilitative aspects of the proposed program for the care of chronic illness. Following is Dr. Rusk's letter, addressed to the Medical Director of the Commission's staff.

Department of Rehabilitation and Physical Medicine
New York University College of Medicine
New York City

April 17, 1947

My dear Dr. Levin:

Knowing of my interest in rehabilitation and convalescent care, I am sure you realize that it was with considerable interest that I read the proposed program for the care of the chronically ill in New York State prepared by the New York State Commission to Formulate a Long Range Health Program. Based on my experience in this field, I sincerely feel that the recommendations of the Commission, if adopted, would provide for immeasurable improvement in both the scope and availability of increased medical care for the nearly three quarters of a million persons in New York State who suffer from disabling chronic illnesses.

Using the criteria of the National Health Survey conducted by the United States Public Health Service in which it was reported that 11.7 persons per 1,000 are permanent invalids (it should be noted that these figures do not include persons with tuberculosis and mental diseases), there are at least 164,000 persons in New York State classed as permanent invalids who should be examined and evaluated for possible rehabilitation. This, of course, is a minimal figure for there are thousands of others whose disabilities, although partial, are serious deterrents to economically and socially productive living

Experience in the rehabilitation programs of the military services, the Veterans' Administration, and some civilian hospitals have shown that functional ability in walking, the use of hands, and the skills necessary to carry on the factors inherent in daily living and work can be immeasurably improved by purposeful programs of planned rehabilitation and retraining conducted by competent, trained personnel. Medical service should not be considered complete until the residual disability of the paralytic is reduced to the minimum, until the cardiac patient has been taught to live within the limits of his disability but to the hilt of his abilities, until the amputee has gained the maximum skill in the use of his prosthetic device, or until the laryngectomized patient has developed the best possible esophageal voice. Yet, because of the lack of adequate facilities, trained personnel and research necessary for this third phase of medical care, which takes the patient from the bed to the job, many patients are now discharged from hospitals ill-equipped to meet the demands of daily living and of work, or remain static hospital cases occupying sorely needed acute beds. There is no more striking example of the need for increased emphasis on rehabilitation opportunities than the estimated 18,000 children in New York State who are handicapped by cerebral palsy. Though 75 per cent of this group have intelligence quotients of 70 or higher and are unquestionably teachable, few have the proper treatment and training needed to gain maximum improvement in coordination, control and motor skills. Their adult counterparts are the thousands of arthritics and hemiplegics who likewise have no place to which they may turn for retraining and rehabilitation.

Ignoring the humanitarian and social values of transforming disabled dependents into useful, productive citizens, it has been demonstrated that rehabilitation pays off economically. Of the 43,997 persons undergoing vocational rehabilitation in the state programs operated under the Office of Vocational Rehabilitation of the Federal Security Agency in 1944, 22 per cent, or more than 10,000, had never been gainfully employed and nearly 90 per cent, or approximately 40,000, were not employed at the time they started their rehabilitation. The average annual wage of the entire group prior to rehabilitation was $148. After

rehabilitation, the average annual wage of the group increased to $1,768.

Prior to rehabilitation the majority of these persons relied on general public assistance not only for the disabled individual but also for his family. The annual cost to the taxpayer for such assistance was from $300 to $500 per case, but the total cost of their rehabilitation averaged only $300 per case, a nonrecurring expenditure. The taxes paid directly as a result of increased income, and indirectly through increased purchasing power, by this group in a single year were sufficient to reimburse the government for the major portion of the cost of their rehabilitation. Of prime importance is the additional fact that of the group of rehabilitated persons last year, approximately 41 per cent were under the age of 15 at the time of disablement, and approximately 34 per cent were between the ages of 15 and 30 years.

Though this program, which is operated as a division of the State Department of Education, is known as "vocational" rehabilitation, the services it assumes are varied and include the cost for medical care, medical rehabilitation, hospitalization, nursing care and furnishing prosthetic devices. Medical rehabilitation is very frequently a prerequisite for any indicated vocational training, for it is essential that the disability be reduced to its minimum before a vocational objective is picked for the client. Because of the lack of facilities for medical rehabilitation throughout New York State, many clients are denied the services of this program. Also excluded are the many disabled housewives and those of later years who are not considered "vocational" prospects.

As has been recommended by the Subcommittee on Community Rehabilitation Centers of The Baruch Committee on Physical Medicine, there is need for a series of community rehabilitation centers extending from the traveling clinics in the sparsely populated areas, concentrating on case finding and consultation services, to the local physician to complete or "total" centers in the metropolitan areas in which highly specialized services in physical rehabilitation and restoration, psycho-social adjustment, and vocational guidance and training would be available.

In the smaller cities it would be possible to establish rehabilitation centers in conjunction with local general hospitals. Such centers, though small and limited in facilities and personnel, would be able to meet the needs of many of the less severe cases of the community. Severe cases could be transferred to more comprehensive programs in the medium sized cities, or to the larger centers in the metropolitan areas which would offer a complete service for all types of cases. Such centers would follow the same organizational concepts, both in regard to serving specified regions and being affiliated with existing hospitals or medical schools, as the Chronic Disease Hospital Centers being recommended by the Commission. The establishment of the latter would undoubtedly provide the basis for the organization of such rehabilitation centers.

With a series of rehabilitation centers, it would be possible to provide training opportunities for physicians, therapists, social workers, vocational guidance specialists and the other personnel essential to the rehabilitation processes from the entire area serviced. The establishment of regional plans for training, research and professional and public education in rehabilitation could be developed rather easily following the pattern established at Rochester by the Council of Regional Hospitals.

It is evident that much of the leadership in establishing a complete program of medical rehabilitation for the State must come from the State itself. Though there is considerable interest on the community level in providing rehabilitation centers in New York State, significant impetus could be given their development by leadership from the State Department of Health through its Division of Medical Rehabilitation, in cooperation with the Department of Education and other State agencies concerned in this field. Such a program can effectively coordinate community thinking and action, integrate planned programs with existing resources, stimulate inter-community relationships and prevent duplication of effort.

As you know, an extensive medical rehabilitation program is being developed in New York City at the present time in Bellevue Hospital. An even more comprehensive program is being planned for the new Institute of Rehabilitation and Physical Medicine which is to be a part of the new New York University-Bellevue Medical Center. These new facilities, together with the many specialized agencies within New York City dealing with various aspects of rehabilitation, however, will be insufficient to meet the rehabilitation needs of all of the residents of New York. That similar centers are needed in the remainder of New York State is shown by the hundreds of letters received by New York University officials from upstate residents requesting information about rehabilitation opportunities.

The needs of many of these patients could be met by the immediate establishment of small rehabilitation units in general hospitals throughout the State. More comprehensive rehabilitation units could then be established in the medical teaching centers at Buffalo, Rochester, Syracuse and Albany. These could be a part of the recommended Chronic Disease Hospital Centers, but pending the establishment of the latter, the rehabilitation units could be started almost immediately by designating certain sections of the general hospitals now affiliated with those teaching centers as Rehabilitation Units.

Certainly some attention should also be directed toward the evaluation of disabled residents in the public homes throughout the State. Unquestionably there are many residents of such homes at the present time who could be rehabilitated and retrained to the point of whole or partial self-support or could reach a level of ability which would permit self-care. This evaluation could probably be done by a rehabilitation team consisting of a trained physician, therapist and

social worker from one of the Regional Centers who could visit public homes in that area (under the joint sponsorship of the State Departments of Social Welfare and Health.) The same team might conceivably conduct the clinics previously suggested for the rural regions. Paralleling an expansion of physical facilities for rehabilitation, there must be a continuing program of both professional and public education. The initial impetus for such an educational program has been furnished by the professional and general interest in the problems of the disabled veteran. If the benefits of experience and research gained from the concerted efforts of the Nation to provide the man disabled in military service with the maximum opportunities for rehabilitation are to be extended to the far greater number of disabled civilians, there must be a continuing emphasis on education. The leadership for such education is now coming from private sources and voluntary health agencies. It is, however, a responsibility which should be shared by the State.

I, personally, and those with whom I am associated will be happy to participate with the State Department of Health or any other State agency in any way possible in the implementation of any rehabilitation program which will bring new opportunity and hope to the disabled people of New York State who are so desperately in need of such services.

Sincerely,

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SUPPORTING STUDIES

PREVALENCE AND TREND OF CHRONIC ILLNESS IN NEW YORK STATE

In this section is presented a summary and analysis of pertinent available information regarding the extent of chronic illness in New York State, how much may be expected to occur in the next thirty-five years and the amount of hospital care devoted to such illness.

Data utilized in this report. The principal sources for the facts on which this report is based are:

1. Data gathered by the U. S. Public Health Service in its National Health Survey of 1935–1936. In addition to the published papers of the Survey, the U. S. Public Health Service made available also its material in manuscript form and other unpublished tabulations. Grateful acknowledgement is made to George St. John Perrott, Chief, Division of Public Health Methods, and to Dr. Selwyn D. Collins, Head Statistician, U. S. Public Health Service, for providing access to this material and for assistance in its use.
2. The *Hospital Discharge Study* for New York City, 1933, published by the Welfare Council of New York City in 1942. It was a fortunate circumstance that this study was made only a few years before the National Health Survey, which included New York City, was carried out. The two studies supplemented each other with respect to information on hospital care, and thus certain estimates could be made by combining data from each. The Hospital Council of Greater New York very kindly supplied certain unpublished tabulations from this study.
3. Mortality statistics of the New York State Department of Health.
4. A special study, made by the Commission, in cooperation with the Nassau County Department of Public Welfare, of the medical care afforded welfare clients in Nassau County, New York, in 1944. A full report of this study appears elsewhere in this volume.
5. Miscellaneous data furnished by the New York State Legislative Commission on Medical Care, 1946, and the New York State Department of Social Welfare.

TABLE 5.—*Diagnoses Classified As Chronic for the Purpose of Estimating the Prevalence of Chronic Illness in New York State.*[a]

Cancer, all sites
Nonmalignant tumors and tumors, nature unspecified
Acute rheumatic fever
Chronic rheumatism, arthritis and gout
Diabetes mellitus
Diseases of the thyroid gland, including all types of goiter and parathyroid diseases
Anemia, all forms
Other general diseases
Cerebral hemorrhage (apoplexy), embolism, thrombosis
Other paralysis
Chorea
Neuralgia and neuritis
Nervousness, neurasthenia and nervous breakdown
Diseases of the eye and blindness
Diseases of the ear and deafness
Diseases of the heart and coronary arteries
Arteriosclerosis and high blood pressure
Hemorrhoids
Varicose veins or ulcer, varicocele
Sinusitis
Asthma
Hay Fever
Ulcer of the stomach or duodenum
Hernia
Diseases of the gallbladder and liver
Nephritis and other diseases of the kidney, including kidney, unspecified
Diseases of the bladder, urethra and urinary passages
Nonvenereal diseases of the male genital organs
Cysts of the ovaries, uterus and tubes
Eczema
Diseases of the bones and joints, except tuberculosis and rheumatism
Lumbago, myalgia, myositis, stiff neck and other muscular pains
Other diseases of the organs of locomotion
Congenital malformations and other diseases of early infancy
Other and ill-defined causes, including senility

[a] Classification based on *Manual of the International List of Causes of Death*, 1929 Revision.

For the methods employed in utilizing their data and the conclusions drawn therefrom, the persons and agencies named above should not, of course, be considered responsible.

Definition of chronic illness. A chronic illness is one which lasts a "long" time, in contrast with an acute illness, which is over in a relatively "short" period. Diabetes, which is present throughout the lifetime of an individual, is a typical example of a chronic illness while the common cold, which usually has a duration of two weeks, is considered an acute illness. But chronicity and acuteness are not necessarily mutually exclusive. Acute episodes may occur during the course of a chronic disease, such as, for example, diabetic coma during the course of diabetes. An acute illness may result in a chronic disease, such as chronic nephritis which follows scarlet fever. Thus, while the nature of the disease, as described by the *diagnosis*, usually indicates whether the illness is chronic or acute, this is not always true. For practical purposes, any illness of long *duration* must be considered chronic, regardless of its cause. In this report, each of these methods of defining chronic illness will be used. With respect to duration, the definition employed by the National Health Survey—any pathological condition known to the patient and causing symptoms for three months or more—has been adopted in estimating prevalence on the basis of the Survey's findings. In addition, certain *diagnoses* were selected as describing diseases of a chronic nature. These diagnoses are listed in Table 5. Use of the diagnostic definition was necessitated by the fact that certain information was not available for illness classified by duration of symptoms, but was available by diagnosis. With respect to hospital care, hospitalization of thirty days or more was adopted as defining a long-term or chronic hospitalized illness, in addition to the diagnostic definition.

THE INCREASE IN CHRONIC DISEASE

During the past fifty years chronic disease has assumed steadily increasing importance as a cause of illness and disability. Since most of the chronic diseases have never been routinely reported to health authorities, statistical data regarding changes in their prevalence must be derived from mortality records.

The seven chronic diseases occurring most frequently[1] as causes of death in recent years are: heart disease, cancer, brain hemorrhage and apoplexy (intracranial lesions of vascular origin), nephritis, diabetes, diseases of the arteries and cirrhosis of the liver. These diseases now account for almost one-third the total cases of chronic illness[2] and include six of the ten leading causes of death. Between 1900 and 1940, a period in which the population of New York State increased by 85 per cent and the total number of deaths increased by only 13 per cent, the number of deaths from this group of chronic diseases increased by 200 per cent. (Table 6.)

In 1900, the proportion of all deaths which these diseases accounted for in New York State was one-fourth; in 1925, one-half; in 1940, over two-thirds. (Table 3.) Part of this increase is *relative* and is due to the decrease in mortality from other diseases, notably the acute communicable diseases, tuberculosis, and diarrhea and enteritis.[3] In addition there was an *absolute* increase in mortality from these chronic diseases which can be measured by the increase in gross mortality rate from this group of causes, which was 62 per cent higher in 1940 than in 1900. However, the major portion of this increase was due to the aging of the population. This is shown by the fact that, when the mortality rate for 1900 is re-calculated for a popu-

[1] Tuberculosis excepted.

[2] As determined by application of the *diagnosis* definition of chronic illness.

[3] For example, deaths from five acute communicable diseases —typhoid fever, scarlet fever, whooping cough, diphtheria and measles—comprised 6.3 per cent of all deaths in New York State in 1900, but only 0.2 per cent in 1943; diarrhea and enteritis among children under 2 years of age, caused 6.7 per cent of deaths in 1900, but 0.3 per cent in 1940; influenza, bronchitis and pneumonia (all forms) accounted for 16.0 per cent of deaths in 1900, 5.1 per cent in 1940; tuberculosis (all forms) 12.0 per cent in 1900, 3.9 per cent in 1940.

TABLE 6.— *Population, Deaths from All Causes and from Certain Chronic Diseases, New York State, 1900 to 1940*

YEAR	Population [a]		Deaths (All Causes Exclusive of Still-births)		Deaths From Chronic Diseases [b]	
	Number	Per Cent Increase Over 1900	Number	Per Cent Increase Over 1900	Number	Per Cent Increase Over 1900
1900	7,284,461	.....	132,091	.....	33,989	.....
1910	9,140,263	25.4	147,702	11.8	49,086	44.4
1920	10,496,881	44.0	144,466	9.3	60,636	78.3
1930	12,609,280	73.0	147,424	11.6	80,516	136.8
1940	13,501,465	85.3	149,522	13.1	102,166	200.5

Source: *Sixty-fourth Annual Report of the New York State Department of Health*, Vol. 2, 1944, Tables 1, 3, and 5.

[a] Estimated as of July 1.

[b] Cancer, diabetes, heart disease, cerebral hemorrhage and apoplexy, nephritis, diseases of arteries, cirrhosis of liver.

TABLE 7.— *Deaths from Seven Chronic Diseases [a] in New York State, 1900 to 1943— Number, Rates Per 100,000 Population and Per Cent of All Deaths [b]*

YEAR	New York State			New York City			Rest of State		
	Number of Deaths	Rate	Per Cent of All Deaths	Number of Deaths	Rate	Per Cent of All Deaths	Number of Deaths	Rate	Per Cent of All Deaths
				(a). Total [a]					
1900	33,989	466.59	25.7	16,590	481.09	23.4	17,030	443.95	27.8
1905	42,218	513.69	30.7	20,277	491.96	27.5	20,899	510.13	32.8
1910	49,086	537.03	33.2	23,923	499.94	31.2	25,163	577.79	35.5
1915	58,463	589.90	39.8	26,909	515.05	35.3	31,554	673.36	44.6
1920	60,636	577.66	42.0	26,653	486.51	37.8	32,983	685.30	46.3
1925	71,759	617.64	50.3	34,281	542.15	47.7	37,478	707.80	53.0
1930	80,516	638.55	54.6	39,539	569.43	51.8	40,977	723.24	57.7
1935	89,971	689.09	60.6	44,804	621.77	58.2	45,167	772.00	63.2
1940	102,166	756.70	68.3	52,503	703.03	67.0	49,663	823.14	69.8
1943	112,559	817.50	69.7	58,923	772.71	69.0	53,636	873.09	70.4
1945	109,508	785.17	71.5	57,838	748.19	70.8	51,670	831.17	72.3
				(b). Cancer					
1900	4,872	66.9	3.7	2,291	66.4	3.2	2,581	67.3	4.2
1905	6,059	73.7	4.4	2,874	69.7	3.9	3,185	77.7	5.0
1910	7,523	82.3	5.1	3,710	77.5	4.8	3,813	87.6	5.4
1915	9,296	93.8	6.3	4,647	88.9	6.1	4,649	99.2	6.6
1920	10,539	100.4	7.3	5,317	93.5	7.3	5,222	108.5	7.3
1925	13,201	113.6	9.3	6,784	107.3	9.4	6,417	121.2	9.1
1930	15,588	123.6	10.6	8,138	117.2	10.7	7,450	131.5	10.5
1935	18,600	142.5	12.5	9,976	138.4	13.0	8,624	147.4	12.1
1940	21,062	156.0	14.1	11,992	160.6	15.3	9,070	150.3	12.8
1943	21,999	159.8	13.6	12,671	166.2	14.8	9,328	151.8	12.3
1945	23,304	167.1	15.2	13,401	173.4	16.4	9,903	159.3	13.9
				(c). Diabetes					
1900	792	10.9	0.6	357	10.4	0.5	435	11.3	0.7
1905	1,187	14.4	0.8	589	14.3	0.8	598	14.6	0.9
1910	1,498	16.4	1.0	768	16.0	1.0	730	16.8	1.0
1915	2,249	22.7	1.5	1,109	21.2	1.5	1,140	24.3	1.6
1920	2,188	20.8	1.5	1,075	18.9	1.5	1,113	23.1	1.6
1925	2,508	21.6	1.8	1,313	20.8	1.8	1,195	22.6	1.7
1930	3,406	27.0	2.3	1,816	26.2	2.4	1,590	28.1	2.2
1935	4,221	32.3	2.8	2,303	32.0	3.0	1,918	32.8	2.7
1940	5,450	40.4	3.6	3,134	42.0	4.0	2,316	38.4	3.3
1943	5,625	40.9	3.5	3,291	43.2	3.9	2,334	38.0	3.1
1945	5,402	38.7	3.5	3,150	40.7	3.9	2,252	36.2	3.1
				(d). Intracranial lesions of vascular origin					
1900	7,783	106.8	5.9	2,906	84.3	4.1	4,877	127.1	8.0
1905	8,409	102.3	6.1	3,300	80.1	4.5	5,109	124.7	8.0
1910	9,043	98.9	6.1	2,946	61.6	3.8	6,097	140.0	8.6
1915	9,572	96.6	6.5	3,191	61.1	4.2	6,381	136.2	9.0
1920	10,177	97.0	7.0	3,321	58.4	4.5	6,856	142.5	9.6
1925	9,867	84.9	6.9	3,228	51.1	4.5	6,639	125.4	9.4
1930	9,507	75.4	6.4	3,556	51.2	4.7	5,951	105.0	8.4
1935	9,926	76.0	6.7	4,199	58.3	5.5	5,727	97.9	8.0
1940	9,955	73.7	6.7	3,811	51.0	4.9	6,144	101.8	8.6
1943	10,767	78.2	6.7	3,953	51.8	4.6	6,814	110.9	8.9
1945	10,435	74.8	6.8	3,876	50.1	4.7	6,559	105.5	9.2

TABLE 7.— *Deaths from Seven Chronic Diseases [a] in New York State, 1900 to 1943 Number, Rates Per 100,000 Population and Per Cent of All Deaths [b] — (Concluded)*

YEAR	New York State			New York City			Rest of State		
	Number of Deaths	Rate	Per Cent of All Deaths	Number of Deaths	Rate	Per Cent of All Deaths	Number of Deaths	Rate	Per Cent of All Deaths
				(e). Diseases of the heart					
1900	10,303	141.4	7.8	4,648	134.8	6.6	5,655	147.4	9.2
1905	13,632	165.9	9.9	6,188	150.1	8.4	7,444	181.7	11.7
1910	14,406	157.6	9.8	7,583	158.5	9.9	6,823	156.7	9.6
1915	20,586	207.7	14.0	9,766	186.9	12.8	10,820	230.9	15.3
1920	22,269	212.1	15.4	10,597	186.4	14.5	11,672	242.5	16.4
1925	29,309	252.3	20.6	14,829	234.5	20.6	14,480	273.5	20.5
1930	35,787	283.8	24.3	19,004	273.7	24.9	16,783	296.2	23.6
1935	42,325	324.2	28.5	21,941	304.5	38.5	20,384	348.4	28.5
1940	52,038	385.4	34.8	27,659	370.4	35.3	24,379	404.1	34.3
1943	60,456	439.1	37.4	32,888	431.3	38.5	27,568	448.8	36.2
1945	58,519	419.6	38.3	32,039	414.5	39.3	26,480	426.0	37.1
				(f). Diseases of the arteries					
1900	369	5.1	0.3	[c]	.....	.....	[c]	.....	.....
1905	1,042	12.7	0.8	[c]	.....	.....	[c]	.....	.....
1910	2,394	26.2	1.6	935	19.5	1.2	1,460	33.5	2.1
1915	2,601	26.2	1.8	791	15.1	1.0	1,810	38.6	2.6
1920	2,987	28.5	2.1	928	16.3	1.3	2,059	42.8	2.9
1925	3,512	30.2	2.5	1,465	23.2	2.0	2,047	38.7	2.9
1930	3,517	27.9	2.4	1,605	23.1	2.1	1,912	33.7	2.7
1935	3,197	24.5	2.2	1,347	18.7	1.7	1,850	31.6	2.6
1940	3,163	23.4	2.1	1,228	16.4	1.6	1,935	32.1	2.7
1943	3,961	28.8	2.5	1,650	21.6	1.9	2,311	37.6	3.0
1945	3,388	24.3	2.2	1,386	17.9	1.7	2,002	32.2	2.8
				(g) Cirrhosis of the liver					
1900	1,242	17.0	0.9	922	26.7	1.3	320	8.3	0.5
1905	1,476	18.0	1.1	907	22.0	1.2	569	13.9	0.9
1910	1,801	19.7	1.2	1,140	23.8	1.5	661	15.2	0.9
1915	1,407	14.2	1.0	721	13.8	0.9	686	14.6	1.0
1920	779	7.4	0.5	366	6.4	0.5	413	8.6	0.6
1925	847	7.3	0.6	406	6.4	0.6	441	8.3	0.6
1930	980	7.8	0.7	437	6.3	0.6	543	9.6	0.8
1935	1,354	10.4	0.9	809	11.2	1.1	545	9.3	0.8
1940	1,557	11.5	1.0	962	12.9	1.2	595	9.9	0.8
1943	1,742	12.7	1.1	1,012	13.3	1.2	730	11.9	1.0
1945	1,771	12.7	1.1	1,100	14.2	1.3	671	10.8	0.9
				(h) Acute and chronic nephritis					
1900	8,628	118.4	6.5	5,466	158.5	7.7	3,162	82.4	5.2
1905	10,413	126.7	7.6	6,419	155.7	8.7	3,994	97.5	6.3
1910	12,421	135.9	8.4	6,842	143.0	8.9	5,579	128.1	7.9
1915	12,752	128.7	8.7	6,684	127.9	8.8	6,068	129.5	8.6
1920	11,697	111.4	8.1	6,049	106.4	8.3	5,648	117.4	7.9
1925	12,515	107.7	8.8	6,256	98.9	8.7	6,259	118.2	8.9
1930	11,731	93.0	8.0	4,983	71.8	6.5	6,748	119.1	9.5
1935	10,348	79.3	7.0	4,229	58.7	5.5	6,119	104.6	8.6
1940	8,941	66.2	6.0	3,717	49.8	4.7	5,224	86.6	7.3
1943	8,009	58.2	5.0	3,458	45.3	4.0	4,551	74.1	6.0
1945	6,689	48.0	4.4	2,886	37.3	3.5	3,803	61.2	5.3

[a] Chronic diseases included: cancer, diabetes, intracranial lesions of vascular origin, diseases of the heart, diseases of the arteries, cirrhosis of the liver, and acute and chronic nephritis.

Source: New York State Department of Health, *Sixty-fourth Annual Report* (1943), Vol. 2, Tables 1, 3, 5 and 7.

[c] For 1900 and 1905 deaths due to diseases of the arteries are included in the total for New York State, but comparable data are not available for New York City and rest of State, separately.

lation with the same age distribution as in 1940, the increase in the mortality rate in the later period is only 23 per cent. (Table 8.)

It will be noted that there was a decrease in mortality from three chronic diseases—cerebral hemorrhage and apoplexy, nephritis, and cirrhosis of the liver. It seems reasonable that part of this decrease may be real. For example, better nutrition would be expected to decrease mortality from cirrhosis of the liver and lessened incidence of acute streptococcal infections in childhood would have a similar effect on the incidence and mortality from chronic nephritis in later life. It is certain, however, that a substantial part of the apparent decrease in mortality from these diseases is due to improved medical knowledge in assigning the cause of death—to heart disease, for example, rather than to nephritis. For the same reason, it is not certain that there has been an increase in mortality from the cardiovascular-renal diseases as a group, apart from that due to aging of the population. At least part of the increase in cancer mortality can be explained by improved diagnosis and aging of the population, although a real increase in certain forms of cancer, such as lung cancer, which have increased to a much greater extent than other types, cannot be excluded. The increase in mortality from diabetes seems paradoxical in view of the greatly improved methods of treatment following the discovery of insulin. However, treatment of diabetes controls but does not cure this disease, so that the effect of improved treatment has been to increase the number of older persons with diabetes, and it is among these that most of the increase in mortality has occurred. It is generally believed that there has been also an additional increase in the prevalence of diabetes, attributable to the increased food intake and lessened output of physical energy characteristic of modern urban life.

There is no doubt that, as a result of aging of the population alone, there has occurred a marked increase in the *number* and *rate* of deaths from chronic diseases, pointing to their mounting importance as a medical and social problem affecting a larger proportion of our people each year.

TABLE 8.— *Effect of "Aging" of Population on Mortality from Seven Chronic Diseases, New York State*

Percentage change from 1900 to 1940, compared with change if population in 1900 had been of same age distribution as in 1940

DISEASE	Death Rates Per 100,000 Population			Percentage Change 1900 to 1940	
	1900		1940		
	Actual Rate	Age-standardized Rate [a]	Actual Rate [b]	In Actual Rates	In Age-standardized Rates
Total, seven chronic diseases	466.6	613.5	756.6	+62.2	+23.3
Cardiovascular renal diseases	371.7	485.7	548.7	+47.6	+13.0
Heart disease	141.4	182.8	385.4	+172.6	+110.8
Acute and chronic nephritis	118.4	151.4	66.2	−44.1	−56.3
Brain hemorrhage, apoplexy [c]	106.8	144.5	73.7	−31.0	−49.0
Diseases of the arteries	5.1	7.0	23.4	+358.8	+234.3
Cancer	66.9	90.6	156.0	+133.2	+72.2
Cirrhosis of liver	17.0	22.6	11.5	−32.4	−49.1
Diabetes mellitus	10.9	14.6	40.4	+270.6	+176.7

[a] Rate calculated on assumption that the percentage of persons in each age group was the same in 1900 as in 1940.
[b] For 1940, the actual and age-standardized rates are the same, by definition.
[c] "Intracranial lesions of vascular origin."

PREVALENCE OF CHRONIC ILLNESS[4]

Non-disabling chronic illness. Illness considered to be handicapping and causing symptoms for three months or more, but not causing disability,[5] affects approximately 14 per cent of the population of the State within a year. (Table 9.) On the basis of the population enumerated in the 1940 census, this would be 1,876,000 persons; on the basis of the estimated

[4] For the most part, the data on which estimates of prevalence are based are expressed as *illnesses* per 1000 population. Analysis of these data indicates that for chronic illnesses there was negligible duplication of illnesses affecting the same individual, so that the rates may be considered as equivalent to *persons* per 1000 population.

[5] A disabling illness was defined as one which kept the person from work, school or other usual occupation for at least seven consecutive days during the year, or, required hospitalization, or, caused death.

population for 1946,[6] the number would be 1,957,000 persons.

Although it is known that there was considerable under-reporting of illness in the National Health Survey, on which these figures are based, no attempt has been made to correct for this, so that these are certainly minimum estimates. They indicate how large is the number of persons with chronic illness not yet sufficiently advanced to interfere with their usual pursuits, among whom early diagnosis and treatment would be most effective in preventing or postponing the onset of disability. Not included in this number are the persons in whom chronic disease has not yet caused symptoms but could be discovered by medical examination—the persons with early diabetes, with early high blood pressure, with early heart disease, with early unnoticed tumors. Some indication of how great a problem in medical care such persons present may be gained from a report[7] of the first two years' experience of five Health Maintenance Cancer Prevention Clinics established in Philadelphia in 1944, under the sponsorship of the Donner Foundation, Inc. Out of 4,209 persons examined, over 60 per cent were found in need of treatment for some chronic condition, although the examinations were restricted, as far as possible, to persons who considered themselves well. In this group were found 24 persons with cancer, 203 with cardiovascular disease, 343 with benign tumors, 52 persons with hernia, 22 with pulmonary tuberculosis and 27 with venereal diseases.

TABLE 9.— *Prevalence of Non-disabling* [a] *Chronic Illness, New York State, 1940*

AREA	Rate Per 1000 Population [b]	Number of Illnesses (in Thousands)
New York State	139	1876
New York City	137	1021
Rest of State	142	855

[a] Illness causing symptoms for 3 months or more, but not causing disability of 7 consecutive days during the year.
Source: Rollo H. Britten, Selwyn D. Collins and James S. Fitzgerald, *Some General Findings as to Disease, Accidents and Impairments*, Public Health Reports, Vol. 55, pp. 444–470, 1940. Reprint 2143, Tables 4 and 9.
[b] Age-specific rates applied to population as of 1940 census.

DISABLING CHRONIC ILLNESS

For estimation of the prevalence of disabling chronic illness, the diagnoses listed in Table 5 were selected as representing chronic diseases. Tuberculosis and mental disease were excluded because they are not within the scope of this report. It should be noted that the definition of chronic disease by diagnosis tends to underestimate the prevalence. For example, inclusion of *all* illnesses causing disability and symptoms of three months or more, regardless of the diagnosis, increases the prevalence by approximately 11 per cent. Also, the average number of days disability per illness is greater for the latter group. (Table 10.) Since "chronic" means simply "of long duration,"

[6] Provisional estimate of the Division of Vital Statistics, New York State Department of Health, as of July 1, 1946, is 14,078,550.

[7] Cancer Research Division of the Donner Foundation, Inc., *Health Maintenance—Cancer Prevention Services, Organization and Findings After Two Years*, Philadelphia, 1946.

TABLE 10.— *Estimated Annual Prevalence of Chronic Illness by Age and Average Disability per Illness for Three Definitions of Chronic Illness, New York State, 1940* [a]

AGE GROUP AND DISABILITY	Rate per 1,000 Population		
	Disability for Entire Year [b c]	Symptoms for Three Months or More, With at Least 7 Days of Disability in 12 Months [c d]	Illnesses Due to Diseases Classified as Chronic, Causing at Least 7 Days of Disability in 12 Months [c e]
All ages	11.7	49	44.1
Under 15 years	2.4	15	20.2
15–24 years	4.1	20	16.0
25–64 years	11.6	55	46.7
65 years and over	55.5	176	156.6
Average disability per illness (days)	....	149 [f]	116 [g]

[a] Sources of estimates are published reports and unpublished manuscripts of the National Health Survey, 1935–1936, not adjusted for estimated under-enumeration.
[b] Source: Rollo H. Britten, Selwyn D. Collins and James S. Fitzgerald, *Some General Findings as to Disease, Accidents and Impairments*, Public Health Reports, Vol. 55, pp. 444–470, 1940. Reprint No. 2143, Table 10.
[c] Rates adjusted to exclude tuberculosis and mental disease.
[d] *Op. cit.*, Table 8.
[e] See Table 5 for list of diagnoses included. Source: Data of National Health Survey for disabling illness by primary or sole diagnosis, by age (unpublished).
[f] *Op. cit.*, Table 8. Based on application of age-specific rates for frequency of illness and for days of disability per case to New York State population, as of 1940, but not adjusted for estimated under-enumeration of cases and days disability.
[g] *Op. cit.*, Table 6. Based on application of rates of disability per person per year for specific causes. Adjusted for age composition of New York State but not adjusted for estimated under-enumeration of cases and days disability.

the definition by duration of symptoms and disability is the more realistic of the two criteria employed.

Correction for under-enumeration in National Health Survey. It is known that the method employed in the National Health Survey, that of asking a responsible member of the household to recall all illnesses occurring within the previous twelve months, resulted in under-enumeration, especially of short-term illnesses, hospitalized illnesses and deaths. Various estimates have been made of the extent of this under-enumeration. Comparison of hospitalized illnesses, as reported in the Survey[8] for New York City (1935–1936) and as reported by the *Hospital Discharge Study*[9] (1933), revealed considerable under-reporting in the Survey. The smallest discrepancy was in hospitalization of 15 days or over, of which there were 24 per cent less reported in the Survey than in the Discharge Study. This correction factor has been adopted as probably the most appropriate for chronic illness.[10] Even with this correction, estimates of prevalence of chronic illness from National Health Survey data should be considered as *minimum* estimates, since they are based on what people knew about their own illnesses or about illness in members of their families—information which was bound to be incomplete in some instances or lacking in others.

Prevalence of disabling chronic illness. Chronic illness, causing disability averaging 99 days a year, affected approximately 738,000 persons each year in this State in 1940. As shown in Table 11 this is a minimum estimate, and refers only to persons ill from diseases classified as chronic. Considering all illnesses of prolonged duration, the prevalence is 11 per cent higher (822,000). Application of the latter rates to the estimated population in 1946 would further increase the estimated prevalence to 850,000 persons. (Also, Tables 12 and 13.)

[8] Dorothy F. Holland, *Sickness in a Metropolitan Community* (The Results of the National Health Survey in New York City) 1935–1936, U. S. Public Health Service. Unpublished.

[9] Welfare Council of New York City, *Hospital Discharge Study*, 1942, Vol. 1.

[10] It was estimated that days of disability were under-enumerated by 7 per cent.

TABLE 11.— *Estimated Annual Prevalence, Days' Disability and Hospital-days for Chronic Illness, New York State, 1940* [a]

PREVALENCE, DISABILITY AND HOSPITALIZATION	Definition of Chronic Illness	
	Selected Chronic Diseases [b]	All Disabling Illness Causing Symptoms for 3 Months or More
Number of cases	738,000	822,000
Number per 1000 population	55	61
Number of days' disability	73,600,000	110,800,000
Per cent of disability from all illness [c]	52.0	78.3
Number of hospital-days	6,880,000	7,560,000 [d]
Per cent of all hospital-days [c]	39.2	43.1

[a] Population as of 1940 census.
[b] See Table 5 for list of diagnoses included.
[c] Exclusive of tuberculosis and mental disease.
[d] Hospitalization of 30 days or over, exclusive of mental disease and tuberculosis.

TABLE 12.— *Estimated Annual Prevalence, Days' Disability and Hospital-days for Chronic Illness, New York City, 1940* [a]

PREVALENCE DISABILITY AND HOSPITALIZATION	Definition of Chronic Illness	
	Selected Chronic Diseases [b]	All Disabling Illness Causing Symptoms for 3 Months or More
Number of cases	393,000	444,000
Number per 1000 population	53	60
Number of days' disability	39,200,000	59,100,000
Per cent of disability from all illness [c]	51.5	77.6
Number of hospital-days	3,750,000	4,180,000 [d]
Per cent of all hospital-days [c]	36.9	41.2

[a] Population as of 1940 census.
[b] See Table 5 for list of diagnoses included.
[c] Exclusive of tuberculosis and mental disease.
[d] Hospitalization of 30 days or over, exclusive of mental disease and tuberculosis.

TABLE 13.— *Estimated Annual Prevalence, Days' Disability and Hospital-days for Chronic Illness, New York State, Exclusive of New York City, 1940* [a]

PREVALENCE, DISABILITY AND HOSPITALIZATION	Definition of Chronic Illness	
	Selected Chronic Diseases [b]	All Disabling Illness Causing Symptoms for 3 Months or More
Number of cases	345,000	378,000
Number per 1000 population	57	63
Number of days' disability	34,400,000	51,700,000
Per cent of disability from all illness [c]	52.6	79.1
Number of hospital-days	3,130,000	3,380,000 [d]
Per cent of all hospital-days [c]	42.5	45.9

[a] Population as of 1940 census.
[b] See Table 5 for list of diagnoses included.
[c] Exclusive of tuberculosis and mental disease.
[d] Hospitalization of 30 days or over, exclusive of mental disease and tuberculosis.

Disability due to chronic illness. Chronic illness accounts for at least half of all disability from illness, the percentage varying according to the definition of chronic illness, from 52 per cent to 78 per cent. (Tables 11, 12 and 13.) It should be noted that the estimated corrections made for number of illnesses and for days of disability have the effect of decreasing the average days disability per illness, since apparently long-term illnesses were better reported in the National Health Survey than illnesses of short duration.

Relationship of chronic illness to age. Although chronic illness occurs at all ages, its prevalence increases markedly after 25 years of age. In the broad age period of 25 to 64 years, the prevalence is more than double that at earlier ages. Past 65 years, the number of cases per 1000 persons is over three times that at ages 25 to 64 years and more than eight times that at ages 15 to 24 years. (Table 10.) However, the largest *number* of persons with chronic illness are found in the most productive working ages of 25 to 64 years, in which 62 per cent of cases now occur. (Table 14.) If the rate of prevalence at various ages remains the same, the proportion of cases at various ages will change as the proportion of older persons in our population increases. On the basis of the changes in age distribution of the population estimated for 1960 and 1980, the percentage of cases of chronic illness occurring at ages 25 to 64 will decrease from 62.4 per cent in 1940 to 55.8 per cent in 1960 and 49.6 per cent in 1980. (Table 15.) The percentage of cases in the oldest age group of 65 years and over will increase from 24.4 per cent to 33.2 per cent in 1960 and to 39.5 per cent in 1980. Thus, the association between chronic illness and old age may be expected to become more marked as the century advances and the population grows older. At the same time, it should be noted that even in 1980 approximately half of all cases of chronic illness may be expected to occur during the middle span of life when productivity is greatest.

TABLE 14.— *Estimated Per Cent Distribution of Chronic Illness by Age, New York State, 1940*

AGE GROUP	Symptoms for Three Months or More, With at Least 7 Days of Disability in 12 Months [a]	Illnesses Due to Diseases Classified as Chronic, Causing at Least 7 Days of Disability in 12 Months [b] [c]
All ages	100.0	100.0
Under 15 years	9.5	6.3
15–24 years	6.1	6.9
25–44 years	25.2	62.4
45–64 years	35.0	
65 years and over	24.2	24.4

[a] Source: Rollo H. Britten, Selwyn D. Collins and James S. Fitzgerald, *Some General Findings as to Disease, Accidents and Impairments*, Public Health Reports, Vol. 55, pp. 444–470, 1940. Reprint No. 2143.
[b] See Table 5 for list of diagnoses included.
[c] Source: Data of National Health Survey for disabling illness by primary or sole diagnosis, by age (unpublished).

TABLE 15.— *Estimated Per Cent Distribution of Disabling Chronic Illness [a] by Age, New York State, 1940, 1960 and 1980*

AGE GROUP	Per Cent Distribution		
	1940	1960	1980
All ages	100.0	100.0	100.0
Under 15 years	6.3	6.0	5.8
15–24 years	6.9	5.0	5.1
25–64 years	62.4	55.8	49.6
65 years and over	24.4	33.2	39.5

[a] Based on data from National Health Survey, for all disabling illnesses causing symptoms for 3 months or more.

Causes of disabling chronic illness. In Table 16 are listed the most important diseases causing chronic illness. It should be emphasized that these data refer to definitely *disabling* illness and exclude many more early and milder cases of these diseases than are enumerated in this tabulation.

The most important cause, or group of causes, of chronic disabling disease is cardiovascular-renal disease, which includes heart disease, high blood pressure, hardening of the arteries and their effects on the kidneys and brain. These closely related conditions are responsible for one out of every four cases of disabling chronic illness. The far-flung effect of chronic disease is well illustrated by heart disease alone, which causes more deaths among children aged 10 to 15 years than any other disease, is found in an estimated 2 per cent of school children, accounted for one out of every ten rejections for physical defect by Selective Service, is the greatest single cause of death and, in New York State, takes a greater toll than the next four leading causes of death combined.

Arthritis, rheumatism and other chronic affections of the joints are the next most frequent forms of chronic illness and, although relatively rare as causes of death, are an important source of disability and suffering. Next in frequency are diseases of the nervous system and cancer and other tumors. Together, the first four groups of causes mentioned comprise more than half the total cases of chronic disabling illness.

The conservatism of some of these estimates of prevalence of chronic illness is exemplified by the number of cases of cancer and other tumors, of which there were 42,210 cases according to the data of the National Health Survey, applied to the population of New York State for 1940. Correction for under-enumeration would raise this number to 52,340. Although this figure includes benign tumors as well as cancer, the results of cancer reporting, as recorded by the New York State Department of Health, indicate that 31,600 new cases of cancer alone occurred in the State in 1940 and a total of 80,000 cases of cancer were under

TABLE 16.— *Causes of Chronic Disabling Illness and Estimated Number [a] of Illnesses*

DIAGNOSIS	New York City	Rest of State	New York State	
			Number	Per Cent
Total, selected chronic diagnoses	317,400	277,960	595,360	100.0
Cardiovascular-renal disease	80,920	76,440	157,360	26.4
Diseases of heart, coronary arteries	40,300	38,200	78,500	13.2
Nephritis, other diseases of kidneys	17,820	15,340	33,160	5.6
Arteriosclerosis, high blood pressure	12,800	12,620	25,420	4.2
Cerebral hemorrhage, embolism, thrombosis	8,420	8,730	17,150	2.9
Paralysis, excl. paresis, other specific types	1,580	1,550	3,130	0.5
Rheumatism and allied diseases	43,540	38,190	81,730	13.7
Diseases of nervous system	26,780	21,720	48,500	8.1
Cancer and other tumors	22,930	19,280	42,210	7.1
Senility and other ill-defined diseases	21,560	19,160	40,720	6.8
Diseases of gall-bladder and liver	18,440	15,550	33,990	5.7
Deafness and diseases of the ear	14,390	12,310	26,700	4.5
Sinusitis and hay fever	10,260	7,990	18,250	3.1
Diseases of bladder, urinary passages, male genital organs	9,710	8,710	18,420	3.1
Asthma	9,410	8,280	17,690	3.0
Blindness and diseases of eye	8,990	8,210	17,200	2.9
Ulcer of stomach and duodenum	8,350	6,680	15,030	2.5
Hernia	7,850	6,510	14,360	2.4
Diabetes mellitus	6,950	6,530	13,480	2.3
Hemorrhoids	5,700	4,390	10,090	1.7
Diseases of thyroid gland	5,140	3,990	9,130	1.5
Anemia, all forms	3,830	3,270	7,100	1.2
Varicose veins, varicocele	3,030	2,660	5,960	1.0
Congenital and early infancy causes	1,910	1,730	3,640	0.6
Eczema	1,360	1,200	2,560	0.4
Other chronic diagnoses	6,350	5,160	11,510	1.9

[a] Based on data of National Health Survey, applied to New York State population, 1940. Not adjusted for estimated under-enumeration.

treatment or observation during that year.[11] However, the fact that the diagnosis of cancer is usually concealed from the patient and that other members of the family are often reluctant to name cancer as the cause of illness probably explains a good deal of the marked under-enumeration of this disease, which would not obtain for other diseases. In this connection, it should be emphasized that the diagnosis of illness, as given by a member of the family in the Survey, agreed with that subsequently ascertained from the family physician in 83 per cent of the cases, so that the various types of chronic disease as recorded in the Survey data are substantially those which would have been reported by physicians.

Permanent disability. One out of five disabling chronic illnesses causes permanent disability,[12] affecting approximately 163,600 persons in the State. (Table 17.) This figure, since it is based on conditions prevailing in 1935–1936, does not include those permanently disabled as a result of wounds received during World War II. Also, it does not take into account the possible results of application of the great advances made in recent years in the rehabilitation of disabled persons. The estimated prevalence of the permanently disabled does give an approximation of the number of persons who should be examined with reference to possible rehabilitation, even if attention were confined to those permanently disabled.

Causes of permanent disability. The most important causes or groups of causes accounting for permanent disability[13] are (1) cardiovascular-renal diseases,

TABLE 17.— *Prevalence of Chronic Invalidism,[a] New York State, 1946*

PREVALENCE	New York State	New York City	Rest of State
Number per 1000 population [b]	11.6	11.0	12.4
Number of invalids [c]	163,600	85,600	78,000

[a] Exclusive of mental disease and tuberculosis.
[b] Source: National Health Survey. Age-specific rates adjusted to age distribution of New York State population, 1940 census.
[c] Based on population as of July 1, 1946, estimated by Division of Vital Statistics, New York State Department of Health.

including heart disease, cerebral hemorrhage, high blood pressure, arteriosclerosis and diseases of the kidney, which account for 27 per cent of all cases; (2) certain diseases of the nervous system, especially severe emotional disturbances causing so-called "nervous breakdown," which account for almost 15 per cent of cases; (3) rheumatism, arthritis and allied diseases of the joints and muscles, accounting for a little over 11 per cent of cases; (4) the permanent results of accidents, chiefly loss of one or more limbs, accounting for almost ten per cent; (5) blindness and other diseases of the eye, comprising four per cent; (6) diabetes mellitus, comprising almost three per cent. (Table 18.) These six groups of causes make up almost 70 per cent of the cases of permanent disability.

Hospitalization for chronic illness. The marked increase in demand for hospital care for acute illness in the past decade has directed attention to the extent to which beds in general hospitals are occupied by patients with chronic disease. In New York City general hospital admissions rose from 83 per 1000 population in 1933[14] to 98 per 1000 in 1944,[15] an increase in rate of 18 per cent. In the same period the average length of stay in general hospitals in New York City decreased from 15.9 to 14.4 days. Such an increase in rate of admissions, accompanied by a decrease in aver-

[11] Communication from the New York State Department of Health, Division of Cancer Control.
[12] Persons disabled for the entire 12 months period covered by the National Health Survey.
[13] Tuberculosis, mental disease and mental deficiency have been excluded from the list of chronic diseases considered here.
[14] Welfare Council of New York City, *Hospital Discharge Study*, 1942, Vol. I.
[15] Exclusive of tuberculosis and mental disease.

age length of stay, can be accounted for only by an increase confined to short-term hospitalizations of less than 15 days duration, which is in accord with general experience in hospital administration. In recent years every effort has been made to discourage long hospitalizations whenever possible, and it is more than probable that there has been a decrease in the number and proportion of long-term patients in general hospitals, not because of decreased need for hospital care for chronic patients, but because of pressure of demand for beds for acute illnesses. The extent to which general hospital beds were used for long-term, chronic disease in an earlier period (1933) probably is a more reliable index of the need, or at least the demand, for such care than present practice would indicate.

TABLE 18.— *Causes of Permanent Disability and Invalidism* [a] [b]

DISEASE	Per Cent of Invalids
All causes	100.0
Cardiovascular-renal diseases	27.0
Diseases of nervous system [c]	14.7
Rheumatism, arthritis, gout and allied diseases	11.3
Permanent results of accidents	9.8
Blindness and diseases of eye	4.0
Diabetes mellitus	2.7
Asthma	2.2
Cancer and other tumors	2.2
Sinusitis, hay fever and other respiratory diseases	1.8
Chronic results of infantile paralysis	1.3
Ulcers of stomach and duodenum	1.2
Diseases of gall-bladder and liver	1.2
Hernia	1.1
Congenital disease and diseases of early infancy	1.1
Anemia	1.0
Chronic results of communicable disease	0.9
Chronic diseases of skin	0.8
Chronic bronchitis	0.7
Diseases of thyroid gland	0.6
Varicose veins	0.5
Other and ill-defined causes	13.8

[a] Based on data of National Health Survey.
[b] Exclusive of tuberculosis and mental disease.
[c] Exclusive of mental disease and mental deficiency.

The dual definition of chronic illness—illness due to chronic disease or long-term illness from any disease—is applicable also to hospital care. Not every hospitalization for a chronic disease is of long duration, and not every long-term hospitalization is for a disease which is usually considered chronic. Since the term "chronic illness" is used in both these senses, both definitions have been employed here. The data for hospitalized illnesses due to chronic disease are those of the National Health Survey for New York City, revised by adding 24 per cent to the number of admissions and 7 per cent to the number of hospital days.[16] The data on hospitalization by length of stay were obtained from the *Hospital Discharge Study*.[17]

In order to test further the validity of using the hospital experience of New York City in 1933 for estimating present-day needs, this experience was utilized to estimate total general hospital beds needed and compared with the estimate derived, by another method, by the Joint Hospital Board of the Postwar Planning Commission of New York State. The number of general hospital beds needed per death (Table 19), calculated from the 1933 New York City experience—.4149 beds per resident death—when applied

TABLE 19.— *Hospital Admissions, Days, Beds in New York City, 1933* [a]

HOSPITALIZATION	Number	Number	
		Per 1000 Population	Per Resident Death [b]
Admissions	589,377	83	7.62
Hospital-days	9,371,089	1,319.7	121.15
Hospital beds [c]	32,093	4.52	0.4149

[a] Exclusive of tuberculosis and mental diseases. Source: *Hospital Discharge Study*, Welfare Council of New York City, 1942, Vol. I. Data corrected for incomplete coverage of hospitals and for non-residents.
[b] Average annual deaths 1931–1935. Source: *Annual Report of New York State Department of Health*, Vol. 2, 1943.
[c] Calculated from hospital-days on basis of 292 days per bed.

to the average annual deaths[18] in upstate New York for 1940–1944, gives an estimated number of general hospital beds needed of 29,643 beds. This number is within 1.7 per cent of that estimated by the Joint Hospital Board (30,167 beds).[19]

The accuracy of the number of hospital-days estimated for hospitalization for chronic diseases, by diagnosis, depends on the validity of the ratios of hospital-days per hospitalized illness as reported in the National Health Survey. To test the applicability of these ratios to present day practice, they were compared with those obtained from a study of hospital care for chronic illness given to welfare clients in Nassau County, New York, in 1944. (Table 20.) On the whole there is good agreement between the two. More hospital days per hospitalized illness were given in

[16] Based upon comparison of the National Health Survey figures with the more complete data, for hospitalized illness, of the *Hospital Discharge Study*, Welfare Council of New York City, 1942, Vol. 1.

[17] See Table 21A and 21B for details of the methods of calculation employed.

[18] Average annual resident deaths, New York State, exclusive of New York City, 1940–44—71,448 x .4149 = 29,643.

[19] Communication from the Joint Hospital Board, Postwar Public Works Planning Commission, New York State.

Nassau County for diabetes, for peptic ulcer and diseases of the gall bladder and liver, but the number of such cases is too small to affect the over-all ratio greatly. To this extent, however, the estimate of hospital days obtained from the Survey data may be too low rather than too high.

Long-term hospitalized illness (30 days or more) accounts for approximately 43 per cent of all hospital-days when the experience of New York City for 1933 is applied to the 1940 population of the State. The estimated percentage for the State, exclusive of New York City, is somewhat higher (45.9 per cent) than that for New York City (41.2 per cent) because of the somewhat older population in the upstate area. Hospitalized illness for chronic disease, regardless of duration of stay, occupies a somewhat smaller percentage of all hospital-days, but the relative importance of chronic illness in general hospital care, as measured by the two criteria for chronic illness, is similar. As shown in Table 17B, hospitalization for chronic illness, regardless of duration of hospitalization, may be expected to take up 1.75 beds per 1000 population; hospitalization of 30 days' duration or over, regardless of the disease responsible, may be expected to require 1.92 beds per 1000 population. Since *long-term* hospitalization is what must be planned for, the definition of chronic hospital care as comprising all hospitalization of 30 days or more seems the more practical one. On this basis, chronic hospital care requires 1.92 beds per 1000 population, or .1763 beds per annual death. (Table 22.)

TABLE 20.— *Comparison of the Rate of Hospital-days per Hospitalized Illness for Certain Chronic Illnesses, as Determined from the National Health Survey, 1935–1936, and from Data Supplied by the Nassau County Department of Public Welfare*

DIAGNOSIS	Hospital-Days Per Hospitalized Illness	
	National Health Survey [a]	Nassau County [b]
Total, chronic illness [c]	30.4	29.7
Cardiovascular-renal diseases	31.1	27.9
Cancer and other tumors	24.4	24.8
Rheumatism and allied diseases	36.3	39.6
Diseases of the bladder, urethra, urinary passages, male genital organs	23.4	23.1
Ulcer of stomach or duodenum, diseases of gall bladder and liver	21.2	33.6
Diabetes mellitus	31.1	43.7

[a] Source: Dorothy F. Holland, *Sickness in a Metropolitan Community* (The Results of the National Health Survey in New York City), 1935–1936, U. S. Public Health Service. Unpublished. Ratios adjusted for under-enumeration of 24 per cent in admissions and of 7 per cent in hospital-days.

[b] Data from a study of the records of the Medical Care Division, Nassau County Department of Public Welfare, for patients receiving welfare aid and those eligible for medical care for entire year of 1944.

[c] Illnesses due to diagnoses classified as chronic and causing at least 7 days of disability in 12 months. See Table 5 for list of diagnoses included.

TABLE 21A.— *Estimated Number of Hospital Admissions, Hospital-days and Hospital Beds Used for Chronic [a] and Other Illness, by Length of Stay, New York State, 1940*

TYPE OF ILLNESS	Number (in Thousands)								
	New York State			New York City			Rest of State		
	Total	Over 30 Days	30 Days or Less [b]	Total	Over 30 Days	30 Days or Less [b]	Total	Over 30 Days	30 Days or Less [b]
Admissions									
All illness [c]	1,279 [d]	94 [e]	1,185	705 [d]	52 [e]	653	574 [d]	42 [e]	532
Chronic illness [a]	226 [f]	35 [g]	191	123 [f]	19 [g]	104	103	16 [g]	87
Other illness [b]	1,053	59	994	582	33	549	471	26	445
Hospital-days									
All illness [c]	17,520 [h]	7,560 [e]	9,960	10,150 [h]	4,180 [e]	5,970	7,370 [h]	3,380 [e]	3,990
Chronic illness [a]	6,880 [i]	3,080 [j]	3,800	3,750 [i]	1,680 [j]	2,070	3,130 [i]	1,400 [j]	1,730
Other illness [b]	10,640	4,480	6,160	6,400	2,500	3,900	4,240	1,980	2,260
Hospital Beds [k]									
All illness	60.0	25.9	34.1	34.8	14.3	20.5	25.2	11.6	13.6
Chronic illness	23.6	10.6	13.0	12.9	5.8	7.1	10.7	4.8	5.9
Other illness	36.4	15.3	21.1	21.9	8.5	13.4	14.5	6.8	7.7

See page 52 for footnotes to Table 21A.

TABLE 21B.— *Estimated Annual Rate of Hospital Admissions, Hospital-days and Hospital Beds Used for Chronic [a] and Other Illness, by Length of Stay, New York State, 1940*

TYPE OF ILLNESS	RATE PER 1,000 POPULATION								
	NEW YORK STATE			NEW YORK CITY			REST OF STATE		
	Total	Over 30 Days	30 Days or Less [b]	Total	Over 30 Days	30 Days or Less [b]	Total	Over 30 Days	30 Days or Less [b]
ADMISSIONS									
All illness [c]	94.9 [d]	7.0 [e]	87.9	94.5 [d]	7.0 [e]	87.5	95.3 [d]	7.0 [e]	88.3
Chronic illness [a]	16.8 [f]	2.6 [g]	14.2	16.5 [f]	2.6 [g]	13.9	17.1 [f]	2.6 [g]	14.5
Other illness [b]	78.1	4.4	73.7	78.0	4.4	73.6	78.2	4.4	73.8
HOSPITAL-DAYS									
All illness [c]	1,300 [h]	561 [e]	739	1,361 [h]	561 [e]	800	1,223 [h]	561 [e]	662
Chronic illness [a]	510 [i]	229 [j]	281	503 [i]	226 [j]	277	520 [i]	232 [j]	288
Other illness [b]	790	332	458	858	335	523	703	329	374
HOSPITAL BEDS [k]									
All illness	4.45	1.92	2.53	4.66	1.92	2.74	4.19	1.92	2.27
Chronic illness	1.75	0.78	0.97	1.72	0.77	0.95	1.78	0.79	0.99
Other illness	2.70	1.14	1.56	2.94	1.15	1.79	2.41	1.13	1.28

[a] Illnesses due to diagnoses classified as chronic. See Table 1 for list of diagnoses.
[b] Figures obtained by direct subtraction.
[c] Exclusive of tuberculosis, mental disease and admissions to federal hospitals. Includes maternity homes and convalescent hospitals.
[d] Source: *Medical Care for the People of New York State*, Report of the New York State Legislative Commission on Medical Care, February 15, 1946, Table 5, page 295. Six per cent of the New York City admissions were deducted to allow for non-residents (cf. *Hospital Discharge Study*, Welfare Council of New York City, 1942, Vol. 1, page 23.
[e] Estimates calculated from rates based on data of the *Hospital Discharge Study*, by rearrangement and graphical interpolation of published data. The rate for this New York City experience was used to estimate the total for the entire State.
[f] Source: National Health Survey, 1935–1936, unpublished data on hospitalization for individual diagnoses. Data corrected for underreporting (24 per cent) as described in text. Uncorrected data presented in Tables 28 and 30 for individual diagnoses.
[g] Source for proportion of hospital admissions staying over 30 days: Dorothy F. Holland, *Sickness in a Metropolitan Community* (The Results of the National Health Survey in New York City), 1935–1936, U. S. Public Health Service. Unpublished. Data applied to the hospital admission figures in Tables 23 and 25.
[h] Same as footnote [d], above, Table 9, page 301. Number of admissions multiplied by average length of stay to obtain hospital-days.
[i] Based on ratios of hospital-days to hospitalized illness, as published in *Sickness in a Metropolitan Community*, for individual diagnoses and applied to estimates of hospitalized illness. Data corrected for underreporting (7 per cent) as described in text. Unrevised data presented in Tables 28 and 30 for individual diagnoses.
[j] Ratio of hospital days per patient in hospital over 30 days, as presented in *Sickness in a Metropolitan Community*, was multiplied by corresponding number of admissions to obtain hospital-days.
[k] Conversion of hospital-days into hospital beds on basis of 80 per cent occupancy during year.

This estimate is presented as indicating the minimum number of beds which should be specially designated for long-term hospital care, in accordance with previous experience. Extension of hospital practice to include types of patients who formerly have been cared for in nursing homes or related institutions obviously would increase this estimate. On the basis of the formula presented in Table 22, the number of hospital beds for chronic illness which should be made available has been estimated for each county and region of the upstate area. (Table 23.) These estimates are intended to serve as a preliminary basis for planning such facilities. In each area, local conditions with respect to the adequacy of existing facilities and the availability of other institutional facilities for long-term care must be considered in arriving at final conclusions regarding the number of new hospital beds for chronic disease which are needed.

TABLE 22.— *Hospitalization of Over Thirty Days Duration,[a] New York City, 1933*

HOSPITALIZATION	Number	Rate Per 1000 Population [b]	Rate Per Death [c]
Admissions	49,706	7.0	0.643
Hospital-days	3,983,618	561	51.5
Hospital beds [d]	13,634	1.92	0.1763

[a] Exclusive of tuberculosis, mental disease and mental defects. Data from *Hospital Discharge Study*, Welfare Council of New York City, 1942.
[b] Estimated as of July 1, 1933: 7,100,924.
[c] Average annual resident deaths 1931–1935, New York City: 77,346.
[d] On basis of 80 per cent occupancy.

FUTURE TRENDS OF CHRONIC ILLNESS PREVALENCE

Since chronic illness prevalence rises with advancing age, the number of chronically ill persons may be expected to increase as a result of aging of the popu-

TABLE 23.— *Estimated Number of Hospital Beds Needed for Chronic Illness, New York State Exclusive of New York City*

COUNTIES AND REGIONS	Population, 1945	1940–1944 Deaths (Annual Average)	Estimated Hospital Beds for Chronic Illness in Special Facilities
Upstate New York [a]	6,117,520	71,448	12,595.9
Albany Region	982,002	13,216	2,329.9
Albany	227,688	2,923	515.3
Clinton	43,277	540	95.2
Columbia	37,739	594	104.7
Delaware	37,048	541	95.4
Essex	31,335	427	75.3
Fulton	48,241	676	119.2
Greene	26,878	424	74.7
Hamilton	3,413	51	9.0
Montgomery	57,876	760	134.0
Otsego	44,386	680	119.9
Rensselaer	120,880	1,808	318.7
Saratoga	67,150	926	163.3
Schenectady	135,287	1,451	255.8
Schoharie	20,298	303	53.4
Warren	37,178	496	87.4
Washington	43,328	616	108.6
Buffalo Region	1,302,467	14,314	2,523.5
Cattaraugus	68,819	894	157.6
Chautauqua	123,297	1,556	274.3
Erie	856,342	9,152	1,613.5
Genesee	44,750	544	95.9
Niagara	179,844	1,776	313.1
Wyoming	29,415	392	69.1
Rochester Region	876,600	10,501	1,851.3
Allegany	39,585	521	91.9
Chemung	81,043	943	166.3
Livingston	33,761	467	82.3
Monroe	450,285	4,877	859.8
Ontario	52,707	705	124.3
Orleans	26,963	407	71.7
Schuyler	12,421	195	34.4
Seneca	24,957	340	59.9
Steuben	85,151	1,113	196.2
Wayne	53,557	680	119.9
Yates	16,170	253	44.6
Syracuse Region	1,310,073	15,946	2,811.2
Broome	175,301	1,677	295.7
Tioga	26,831	391	68.9
Cayuga	62,928	877	154.6
Chenango	37,336	502	88.5
Cortland	32,346	450	79.3
Franklin	44,122	546	96.3
Herkimer	61,411	792	139.6
Jefferson	83,630	1,139	200.8
Lewis	21,509	292	51.5
Madison	40,935	581	102.4
Oneida	211,174	2,499	440.6
Onondaga	309,827	3,538	623.7
Oswego	68,867	965	170.1
St. Lawrence	90,535	1,166	205.6
Tompkins	43,321	531	93.6
Northern Extra Metropolitan	995,320	11,320	1,995.6
Dutchess	106,896	1,395	245.9
Putnam	15,773	208	36.7
Rockland	63,060	734	129.4
Sullivan	34,568	505	89.0
Orange	132,142	1,741	306.9
Ulster	81,930	1,210	213.3
Westchester	560,951	5,527	974.4
Long Island	651,058	6,151	1,084.4
Nassau	456,225	4,004	705.9
Suffolk	194,833	2,147	378.5

[a] Institutional populations, representing 41 State institutions and 6 Veterans' Administration Facilities, have been excluded from the counties and their total population included in the upstate total.

lation as well as growth in its total number. A conservative estimate of future changes in New York State's population indicates that, although no great increase in total population is anticipated, the percentage of persons aged 45 years and over probably will increase from the 29 per cent found in the 1940 census to an estimated 36 per cent in 1980. (Table 24.) Other factors remaining equal, population aging alone would cause the *rate* of chronic illness prevalence to be 15 per cent higher in 1980 than in 1940. If the effect of estimated population growth is also taken into consideration, the number of cases would be 20 per cent higher and the number of days disability would be 26 per cent higher. (Table 25.) Although no great reliance can be placed on the absolute figures presented in Table 24, there is little doubt that future population changes will tend to magnify the relative importance of chronic illness as a cause of disability.

TABLE 24.— *Per Cent Age Distribution of the Population, New York State, 1900–1940, and Estimates for 1960 and 1980*

AGE GROUP	1900 [a]	1920 [a]	1940 [a]	1960 [b]	1980 [b]
			NEW YORK STATE		
Total population	7,268,894	10,385,227	13,479,142	14,313,000	14,097,000
Per Cent	100.0	100.0	100.0	100.0	100.0
Under 15 years	29.1	27.8	20.6	21.6	21.9
15–24 years	18.5	16.8	16.9	13.4	14.4
25–44 years	32.2	32.8	33.5	28.2	27.0
45–64 years	15.4	17.8	22.2	26.6	24.0
65 years and over	4.8	4.8	6.8	10.2	12.7
			NEW YORK CITY		
Total population	3,437,202	5,620,048	7,454,995	7,904,000	7,685,000
Per Cent	100.0	100.0	100.0	100.0	100.0
Under 15 years	30.7	28.4	19.7	21.6	22.3
15–24 years	19.2	17.8	16.8	12.8	14.6
25–44 years	34.2	34.6	36.0	27.7	26.7
45–64 years	13.1	16.1	21.9	28.3	23.4
65 years and over	2.8	3.1	5.6	9.6	13.0
			REST OF STATE		
Total population	3,831,692	4,765,179	6,024,147	6,409,000	6,412,000
Per Cent	100.0	100.0	100.0	100.0	100.0
Under 15 years	27.7	27.1	21.8	21.5	21.5
15–24 years	17.9	15.6	16.8	14.2	14.1
25–44 years	30.3	30.7	30.3	28.9	27.4
45–64 years	17.5	19.9	22.7	24.4	24.6
65 years and over	6.6	6.7	8.4	11.0	12.4

[a] Source: U. S. Census of Population.

[b] Calculated on assumption that a birth rate of 15 per 1,000 population and the age-specific mortality as of 1939–1941 will prevail in subsequent years, and that net migration will be zero.

TABLE 25.— *Estimated Future Increase in Chronic Illness [a] and Days of Disability, Resulting from Aging of the Population, New York State*

YEAR	Chronic Illness [a]				Days of Disability From Chronic Illness			
	Number [b] (in Thousands)	Rate per 1,000 Population	Per cent increase over 1940		Number [c] (in Hundred Thousands)	Rate per 1,000 Population	Per cent increase over 1940	
			In Rate	In Number			In Rate	In Number
New York State								
1940	663	49.2	..	..	1,035	7,680	..	..
1960	774	54.1	10	17	1,241	8,670	13	20
1980	798	56.6	15	20	1,301	9,230	20	26
New York City								
1940	358	48.0	..	..	552	7,400	..	..
1960	423	53.5	11	18	675	8,540	15	22
1980	436	56.7	18	22	712	9,260	25	29
Rest of State								
1940	305	50.6	..	..	483	8,020	..	..
1960	351	54.8	8	15	566	8,830	10	17
1980	362	56.5	12	19	589	9,190	15	22

[a] Symptoms present for at least 3 months, with disability for 7 days or more; exclusive of tuberculosis and mental diseases.
[b] The estimated population was multiplied by the age-specific prevalence rates in Table 10, Column 2.
[c] Days of disability per case, specific for age, used in calculation taken from: Rollo H. Britten, Selwyn D. Collins and James S. Fitzgerald, *Some General Findings as to Diseases, Accidents and Impairments*, Public Health Reports, Vol. 55, pp. 444–470, 1940. Reprint No. 2143, Table 4.

Advances in knowledge and in the application of existing knowledge regarding prevention and treatment of chronic illness and the rehabilitation of those disabled by chronic disease may counterbalance to some extent the effect of population aging. There are indications that such a trend may have begun. For example, the age-specific rates of mortality from cardiovascular-renal disease have shown a tendency to decrease in recent years. This is evidenced by comparison of the age-standardized rates of mortality from this group of diseases in New York State in 1944, as compared with 1939–1941. (Table 26.) Should the indicated decreases in age-specific mortality continue, and if they reflect a corresponding decrease in prevalence, they may in time offset somewhat the increase in chronic disease mortality resulting from the aging of the population.

Even under the most favorable circumstances, however, we may be reasonably certain that mortality and morbidity from chronic disease will continue to occupy first place among the health problems of our State.

TABLE 26.— *Resident Death Rates Per 100,000 Population from Chronic Diseases, New York State, 1939–1941 and 1944*

Standardized for Age

DISEASE	Annual Average, 1939–1941	1944
Cardiovascular-renal diseases	544.1	523.7
Heart disease	382.7	383.8
Brain hemorrhage and apoplexy	73.8	67.6
Disease of the arteries	23.9	24.5
Nephritis	63.7	47.8
Cirrhosis of the liver	11.8	11.1
Cancer	154.2	151.3
Diabetes mellitus	39.7	36.1

Source: *Annual Report of the New York State Department of Health*, Vol. 2 1942 and 1944.

SUPPLEMENTARY TABLES

TABLE 27.— *Estimates of the Amount of Chronic Illness per Year and the Resultant Days of Disability, New York City* [a] [b]

DIAGNOSIS [c]	ILLNESSES						DAYS OF DISABILITY [e]		
	TOTAL [d]		HOSPITALIZED [d]		NOT HOSPITALIZED [d]			RATE	
	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Per Illness	Per 1,000 Population
Total, selected chronic diagnoses	317,400	42.57	99,580	13.34	217,820	29.23	36,655,000 [f]	115	4,900
Cardiovascular-renal diseases	80,920	10.85	17,140	2.29	63,780	8.56	10,213,000 [g]	126	1,400
Diseases of heart, coronary arteries	40,300	5.41	7,160	.96	33,140	4.45			
Cerebral hemorrhage, embolism, thrombosis	8,420	1.13	2,230	.30	6,190	.83			
Paralysis (exclusive of paresis)	1,580	.21	400	.05	1,180	.16			
Arteriosclerosis, high blood pressure	12,800	1.71	1,880	.25	10,920	1.46			
Nephritis, other diseases of kidneys	17,820	2.39	5,470	.73	12,350	1.66			
Rheumatism and allied diseases	43,540	5.84	5,270	.71	38,270	5.13	5,591,000 [g]	128	750
Chronic rheumatism, arthritis, gout	27,140	3.64	3,460	.46	23,680	3.18			
Acute rheumatic fever	4,600	.62	890	.12	3,710	.50			
Neuralgia, neuritis	7,590	1.02	690	.09	6,900	.93			
Lumbago, other muscular pains	4,210	.56	230	.03	3,980	.53			
Diseases of the digestive system (part)	26,790	3.59	10,480	1.40	16,310	2.19	1,864,000 [g]	70	250
Ulcer, stomach or duodenum	8,350	1.12	3,000	.40	5,350	.72			
Diseases of the gallbladder, liver	18,440	2.47	7,480	1.00	10,960	1.47			
Nervous diseases (part)	26,780	3.59	6,060	.81	20,720	2.78	5,740,000 [g]	214	770
Chorea	730	.10	220	.03	510	.07			
Neurasthenia, nervous breakdown	26,050	3.49	5,840	.78	20,210	2.71			
Cancer and other tumors	22,930	3.07	16,820	2.25	6,110	.82	2,311,000 [g]	101	310
Cancer, all sites	7,840	1.05	4,870	.65	2,970	.40			
Tumors, non-malignant and unspecified	15,090	2.02	11,950	1.60	3,140	.42			
Senility and other ill-defined diseases	21,560	2.89	6,120	.82	15,440	2.07	[h]		
Diseases of the respiratory system (part)	19,670	2.64	3,260	.44	16,410	2.20	544,000 [g]	28	73
Sinusitis	9,250	1.24	2,120	.28	7,130	.96			
Asthma	9,410	1.26	1,100	.15	8,310	1.11			
Hay fever	1,010	.14	40	.01	970	.13			
Deafness and diseases of the ear	14,390	1.93	4,180	.56	10,210	1.37	[h]		
Diseases of the bladder, urethra, urinary passages, male genital organs	9,710	1.30	4,840	.65	4,870	.65	745,000 [g]	77	100
Diseases of the bladder, urethra	6,600	.89	2,880	.39	3,720	.50			
Prostatic enlargement, etc.	3,110	.41	1,960	.26	1,150	.15			
Blindness and diseases of the eye	8,990	1.21	3,260	.44	5,730	.77	[h]		
Diabetes mellitus	6,950	.93	2,760	.37	4,190	.56	1,193,000	172	160
Hernia	7,850	1.06	6,160	.83	1,690	.23	745,000	95	100
Hemorrhoids	5,700	.77	3,570	.48	2,130	.29	268,000	47	36
Diseases of the thyroid gland	5,140	.69	3,590	.48	1,550	.21	485,000	94	65
Anemia, all forms	3,830	.52	950	.13	2,880	.39	507,000	132	68
Diseases of bones, joints, locomotion	3,450	.46	1,820	.24	1,630	.22	[h]		
Varicose veins, varicocele	3,030	.41	570	.08	2,460	.33	313,000	103	42
Other general diseases	2,460	.33	900	.12	1,560	.21	216,000	88	29
Congenital and early infancy causes	1,910	.25	1,300	.17	610	.08	[h]		
Eczema	1,360	.18	180	.02	1,180	.16	82,000	60	11
Cyst of ovaries, uterus, tubes	440	.06	350	.05	90	.01	30,000	68	4

[a] Estimates based on published and unpublished data of the National Health Survey, 1935–36. None have been adjusted for underreporting in the Survey. Illnesses, hospitalized and non-hospitalized, may be revised upwards by 24 per cent, and hospital-days and days of disability by 7 per cent.

[b] As herein used chronic illness is defined as that due to the selected causes listed, and resulting in hospitalization or at least seven days' disability. Certain illnesses normally considered chronic — tuberculosis, mental diseases, syphilis — have been excluded.

[c] Primary or sole diagnosis. Where there were two or more diagnoses, the primary diagnosis is the one associated with the illness for the longest period, or the one regarded as the most important.

[d] Based on age-specific rates for individual diagnoses, National Health Survey, 1935–36, 83 cities (unpublished). Rates applied to 1940 census population for New York City.

[e] Based on days of disability per person-year for each diagnosis or group of diagnoses. See: Rollo H. Britten, Selwyn D. Collins, and James F. Fitzgerald, *The National Health Survey — Some General Findings as to Disease, Accidents and Impairments in Urban Areas.* Public Health Report, Vol. 55 (1940), pages 444–470. Reprint No. 2143, Table 2. Rates applied to 1940 census population for New York City.

[f] Includes allowance for diagnoses for which no individual estimates were available.

[g] Estimates made only for groups of diagnoses.

[h] Not estimated separately.

TABLE 28.— *Estimates of the Amount of Medical and Hospital Service Provided for Treatment of Chronic Illness, New York City* [a] [b]

DIAGNOSIS [c]	HOSPITAL-DAYS				PHYSICIANS' SERVICES (CALLS AT HOME, OFFICE OR CLINIC)		
		RATE				RATE	
	Number [d]	Per 1,000 Population	Per Illness	Per Hospitalized Illness	Number [e]	Per 1,000 Population	Per Illness
Total, selected chronic diagnoses	3,507,400 [f]	470	11.1	35.2	3,467,700 [f]	465	10.9
Cardiovascular-renal diseases	613,000	83	7.6	35.8	1,109,800	149	13.7
Diseases of heart, coronary arteries	287,100	39	7.1	40.1	612,500	82	15.2
Cerebral hemorrhage, embolism, thrombosis	101,700	14	12.1	45.6	127,100	17	15.1
Paralysis (exclusive of paresis)	11,700	2	7.4	29.3	10,500	1	6.6
Arteriosclerosis, high blood pressure	55,500	7	4.3	29.5	153,700	21	12.0
Nephritis, other diseases of kidneys	157,000	21	8.8	28.7	206,000	28	11.6
Rheumatism and allied diseases	221,800	29	5.1	42.1	472,700	63	10.9
Chronic rheumatism, arthritis, gout Acute rheumatic fever Neuralgia, neuritis	203,600	27	6.4	46.8	375,500	50	11.8
Lumbago, other muscular pains	18,200	2	1.5	19.8	97,200	13	8.2
Diseases of the digestive system (part)	257,500	35	9.6	24.6	275,700	37	10.3
Ulcer, stomach or duodenum	75,000	10	9.0	25.0	120,000	16	14.4
Diseases of the gallbladder, liver	182,500	25	9.9	24.4	155,700	21	8.4
Nervous diseases (part)	696,900	93	26.0	115.0	212,600	29	7.9
Chorea	25,300	3			5,700	1	
Neurasthenia, nervous breakdown	671,600	90			206,900	28	
Cancer and other tumors	459,400	62	20.0	27.3	257,800	35	11.2
Cancer, all sites	232,300	31	29.6	47.7	145,100	20	18.5
Tumors, non-malignant and unspecified	227,100	31	15.0	19.0	112,700	15	7.5
Senility and other ill-defined diseases	[g]				[g]		
Diseases of the respiratory system (part)	110,200	15	5.6	33.8	187,300	25	9.5
Sinusitis	20,400	3	2.2	9.6	63,800	9	6.9
Asthma, hay fever	89,800	12	8.6	78.8	123,500	16	11.9
Deafness and diseases of the ear	82,300	11	5.7	19.7	101,800	14	7.1
Diseases of the bladder, urethra, urinary passages, male genital organs	133,200	18	13.7	27.5	75,900	10	7.8
Diseases of the bladder, urethra	96,500	13	14.6	33.5	55,200	7	8.4
Prostatic enlargement, etc.	36,700	5	11.8	18.7	20,700	3	6.7
Blindness and diseases of the eye	52,200	7	5.8	16.0	71,600	10	8.0
Diabetes mellitus	99,400	13	14.3	36.0	93,300	13	13.4
Hernia	106,000	14	13.5	17.2	60,700	8	7.7
Hemorrhoids	31,800	4	5.6	8.9	34,900	5	6.1
Diseases of thyroid gland	80,100	11	15.6	22.3	45,100	6	8.8
Anemia, all forms	48,400	6	12.6	50.9	53,700	7	14.0
Diseases of bones, joints, locomotion	174,400	23	50.6	95.8	69,400	9	20.1
Varicose veins, varicocele	20,600	3	6.8	36.1	34,900	5	11.5
Other general diseases	39,300	5	16.0	43.7	35,400	5	14.4
Congenital and early infancy causes	[g]				[g]		
Eczema	[g]				[g]		
Cyst of ovaries, uterus, tubes	6,100	1	13.9	17.4	3,400	[h]	7.7

[a] See footnote *a*, Table 27.
[b] See footnote *b*, Table 27.
[c] See footnote *c*, Table 27.
[d] Based on number of days of hospital care per person hospitalized as determined from National Health Survey data for New York City. From: Dorothy F. Holland: *Sickness in a Metropolitan Community — The Results of the National Health Survey in New York City.* (Unpublished.)
[e] Based on services per diagnosed illness. For source, see footnote [d].
[f] Includes allowance for diagnoses for which no individual estimates were available.
[g] Not estimated separately.
[h] Rate less than 0.5.

TABLE 29.— *Estimates of the Amount of Chronic Illness per Year and the Resultant Days of Disability, New York State, Exclusive of New York City* [a] [b]

DIAGNOSIS [c]	ILLNESSES						DAYS OF DISABILITY [e]		
	TOTAL [d]		HOSPITALIZED [d]		NOT HOSPITALIZED [d]			RATE	
	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Per Illness	Per 1,000 Population
Total, selected chronic diagnoses	277,960	46.12	83,030	13.77	194,930	32.35	32,183,000 [f]	116	5,300
Cardiovascular-renal diseases	76,440	12.69	15,170	2.52	61,270	10.17	9,639,000 [g]	126	1,600
Diseases of heart, coronary arteries	38,200	6.34	6,380	1.06	31,820	5.28			
Cerebral hemorrhage, embolism, thrombosis	8,730	1.45	2,140	0.36	6,590	1.09			
Paralysis (exclusive of paresis)	1,550	0.26	380	0.06	1,170	0.20			
Arteriosclerosis, high blood pressure	12,620	2.09	1,750	0.29	10,870	1.80			
Nephritis, other diseases of kidneys	15,340	2.55	4,520	0.75	10,820	1.80			
Rheumatism and allied diseases	38,190	6.34	4,340	0.72	33,850	5.62	4,880,000 [f]	128	810
Chronic rheumatism, arthritis, gout	24,200	4.02	2,880	0.48	21,320	3.54			
Acute rheumatic fever	3,840	0.64	700	0.12	3,140	0.52			
Neuralgia, neuritis	6,630	1.10	570	0.09	6,060	1.01			
Lumbago, other muscular pains	3,520	0.58	190	0.03	3,330	0.55			
Diseases of the digestive system (part)	22,230	3.69	8,430	1.40	13,800	2.29	1,506,000 [g]	68	250
Ulcer, stomach or duodenum	6,680	1.11	2,350	0.39	4,330	0.72			
Diseases of the gallbladder, liver	15,550	2.58	6,080	1.01	9,470	1.57			
Nervous diseases (part)	21,720	3.60	4,770	0.79	16,950	2.81	4,699,000 [g]	216	780
Chorea	640	0.10	190	0.03	450	0.07			
Neurasthenia, nervous breakdown	21,080	3.50	4,580	0.76	16,500	2.74			
Cancer and other tumors	19,280	3.20	13,700	2.27	5,580	0.93	1,928,000 [g]	100	320
Cancer, all sites	7,390	1.23	4,420	0.73	2,970	0.50			
Tumors, non-malignant and unspecified	11,890	1.97	9,280	1.54	2,610	0.43			
Senility and other ill-defined diseases	19,160	3.18	5,010	0.83	14,150	2.35	[h]		
Diseases of the respiratory system (part)	16,270	2.70	2,600	0.43	13,670	2.27	482,000 [g]	30	80
Sinusitis	7,200	1.20	1,630	0.27	5,570	0.93			
Asthma	8,280	1.37	940	0.16	7,340	1.21			
Hay fever	790	0.13	30	[i]	760	0.13			
Deafness and diseases of the ear	12,310	2.04	3,550	0.59	8,760	1.45	[h]		
Diseases of the bladder, urethra, urinary passages, male genital organs	8,710	1.45	4,400	0.73	4,310	0.72	663,000 [g]	76	110
Diseases of the bladder, urethra	5,690	0.94	2,490	0.41	3,200	0.53			
Prostatic enlargement, etc.	3,020	0.51	1,910	0.32	1,110	0.19			
Blindness and diseases of the eye	8,210	1.36	2,990	0.50	5,220	0.86	[h]		
Diabetes mellitus	6,530	1.08	2,540	0.42	3,990	0.66	1,084,000	166	180
Hernia	6,510	1.08	4,950	0.82	1,560	0.26	602,000	92	100
Hemorrhoids	4,390	0.73	2,720	0.45	1,670	0.28	205,000	47	34
Diseases of thyroid gland	3,990	0.66	2,750	0.46	1,240	0.20	373,000	93	62
Anemia, all forms	3,270	0.54	820	0.13	2,450	0.41	434,000	133	72
Diseases of bones, joints, locomotion	2,790	0.46	1,460	0.24	1,330	0.22	[h]		
Varicose veins, varicocele	2,660	0.44	480	0.08	2,180	0.36	277,000	104	46
Other general diseases	2,050	0.34	740	0.12	1,310	0.22	211,000	103	35
Congenital and early infancy causes	1,730	0.29	1,190	0.20	540	0.09	[h]		
Eczema	1,200	0.20	160	0.03	1,040	0.17	66,000	55	11
Cyst of ovaries, uterus, tubes	320	0.05	260	0.04	60	0.01	18,000	56	3

[a] Estimates based on published and unpublished data of the National Health Survey, 1935–36. None have been adjusted for underreporting in the Survey Illnesses, hospitalized and non-hospitalized, may be revised upwards by 24 per cent, and hospital-days and days of disability by 7 per cent.

[b] As herein used chronic illness is defined as that due to the selected causes listed, and resulting in hospitalization or at least seven days' disability. Certain illnesses normally considered chronic — tuberculosis, mental diseases, syphilis — have been excluded.

[c] Primary or sole diagnosis. Where there were two or more diagnoses, the primary diagnosis is the one associated with the illness for the longest period, or the one regarded as the most important.

[d] Based on age-specific rates for individual diagnoses, National Health Survey, 1935–36, 83 cities (unpublished). Rates applied to 1940 census population for New York State, exclusive of New York City.

[e] Based on days of disability per person-year for each diagnosis or group of diagnoses. See: Rollo H. Britten, Selwyn D. Collins and James S. Fitzgerald, *The National Health Survey — Some General Findings as to Disease, Accidents and Impairments in Urban Areas.* Public Health Report, Vol. 55: pages 444–470 (1940). Reprint No. 2143, Table 2. Rates applied to 1940 census population for New York State, exclusive of New York City.

[f] Includes allowance for diagnoses for which no individual estimates were available.

[g] Estimates made only for groups of diagnoses.

[h] Not estimated separately.

[i] Less than 0.005.

TABLE 30.— *Estimates of the Amount of Medical and Hospital Service Provided for Treatment of Chronic Illness, New York State, Exclusive of New York City* [a] [b]

DIAGNOSIS [c]	HOSPITAL-DAYS				PHYSICIANS' SERVICES (CALLS AT HOME, OFFICE OR CLINIC)		
		RATE				RATE	
	Number [d]	Per 1,000 Population	Per Illness	Per Hospitalized Illness	Number [e]	Per 1,000 Population	Per Illness
Total, selected chronic diagnoses	2,921,800 [f]	485	10.5	35.2	3,084,100 [f]	512	11.1
Cardiovascular-renal diseases	545,800	91	7.1	36.0	1,052,600	175	13.8
Diseases of heart, coronary arteries	255,800	42	6.7	40.1	581,300	97	15.2
Cerebral hemorrhage, embolism, thrombosis	97,600	16	11.2	45.6	132,400	22	15.2
Paralysis (exclusive of paresis)	11,100	2	7.2	29.2	10,300	2	6.6
Arteriosclerosis, high blood pressure	51,600	9	4.1	29.5	151,300	25	12.0
Nephritis, other diseases of kidneys	129,700	22	8.5	28.7	177,300	29	11.6
Rheumatism and allied diseases	182,500	30	4.8	42.1	416,000	69	10.9
Chronic rheumatism, arthritis, gout Acute rheumatic fever Neuralgia, neuritis	167,500	28	6.0	46.8	332,400	55	11.9
Lumbago, other muscular pains	15,000	2	1.5	19.7	83,600	14	8.2
Diseases of the digestive system (part)	207,200	35	9.3	24.6	227,500	38	10.2
Ulcer, stomach or duodenum	58,800	10	8.8	25.0	96,300	16	14.4
Diseases of the gallbladder, liver	148,400	25	9.5	24.4	131,200	22	8.4
Nervous diseases (part)	548,600	91	25.3	115.0	172,600	29	7.9
Chorea	21,900	4			5,100	1	
Neurasthenia, nervous breakdown	526,700	87			167,500	28	
Cancer and other tumors	387,100	64	20.1	28.3	227,000	38	11.8
Cancer, all sites	210,800	35	28.5	47.7	138,000	23	18.7
Tumors, non-malignant and unspecified	176,300	29	14.8	19.0	89,000	15	7.5
Senility and other ill-defined diseases	[g]				[g]		
Diseases of the respiratory system (part)	92,000	15	5.7	35.4	157,100	26	9.7
Sinusitis	15,600	2	2.2	9.6	49,600	8	6.9
Asthma, hay fever	76,400	13	8.4	78.8	107,500	18	11.9
Deafness and diseases of the ear	69,900	12	5.7	19.7	87,000	14	7.1
Diseases of the bladder, urethra, urinary passages, male genital organs	119,100	20	13.7	27.1	67,700	11	7.8
Diseases of the bladder, urethra	83,400	14	14.7	33.5	47,600	8	8.4
Prostatic enlargement, etc.	35,700	6	11.8	18.7	20,100	3	6.7
Blindness and diseases of the eye	47,800	8	5.8	16.0	65,500	11	8.0
Diabetes mellitus	91,400	15	14.0	36.0	87,800	15	13.4
Hernia	85,100	14	13.1	17.2	52,300	9	8.0
Hemorrhoids	24,200	4	5.5	8.9	26,900	4	6.1
Diseases of thyroid gland	61,300	10	15.4	22.3	35,200	6	8.8
Anemia, all forms	41,700	7	12.8	50.9	45,900	8	14.0
Diseases of bones, joints, locomotion	139,900	23	50.1	95.8	56,200	9	20.1
Varicose veins, varicocele	17,400	3	6.5	36.3	30,700	5	11.5
Other general diseases	32,300	5	15.8	43.6	29,500	5	14.4
Congenital and early infancy causes	[g]				[g]		
Eczema	[g]				[g]		
Cyst of ovaries, uterus, tubes	4,600	1	14.4	17.7	2,400	[h]	7.5

[a] See footnote *a*, Table 25.
[b] See footnote *b*, Table 25.
[c] See footnote *c*, Table 25.
[d] Based on number of days of hospital care per person hospitalized as determined from National Health Survey data for New York City. From: Dorothy F. Holland: *Sickness in a Metropolitan Community — The Results of the National Health Survey in New York City.* (unpublished)
[e] Based on services per diagnosed illness. For source, see footnote *d*.
[f] Includes allowance for diagnoses for which no individual estimates were available.
[g] Not estimated separately.
[h] Rate less than 0.5.

MEDICAL CARE FOR CHRONIC ILLNESS AMONG WELFARE CLIENTS OF NASSAU COUNTY, 1944

The National Health Survey of 1935–1936 affords the most recent available inventory of chronic illness prevalence among a representative sample of the urban population. There is no reason to believe that, for the same age-groups, the prevalence of chronic illness has changed significantly since the Survey was made. However, more recent data regarding the amount of hospital and nursing home care furnished for chronic illness would be desirable, both as a measure of present practice and as an index of the accuracy of estimates of hospital care based on the National Health Survey data. Such information is available for persons provided medical care through public assistance. The records of the Nassau County Department of Public Welfare were selected for this purpose because of the high standards of the medical care furnished public assistance clients in that county. The Medical Care Division of the Department of Public Welfare of Nassau County has for many years been under the full-time supervision of a physician and adequate records have been kept of the amount and type of medical care provided or approved by the Department. Through the kindness and cooperation of Mr. Edwin A. Wallace, Commissioner, and Dr. C. M. Meeks, Director, Medical Care Division of the Department of Public Welfare, the records for 1944 were made available to the Health Preparedness Commission for study.

Nassau County is one of the wealthiest areas of the State. In 1940 its median rental value[1] and, in 1944, its assessed per capita valuation ranked second among upstate counties.[2] In measures of effective buying income[3] it is among the highest 10 per cent of the upstate counties. Thus there is no question concerning the financial ability of the county to provide good medical care for its welfare clients.

SCOPE AND METHODS OF THE STUDY

Included in this study were the records of all persons for whom it could be assumed that the Department of Public Welfare provided all the medical care received during the year. These comprised all persons already on the welfare rolls on January 1, 1944, and not removed in 1944, except because of death or transfer to the County Home or other public institu-

[1] *U. S. Census of Population*, 1940, Vol. II, Part IV (Housing).

[2] *Annual Report of the New York State Tax Commission*, 1944, Part 1.

[3] "Survey of Buying Power," *Sales Management*, May 10, 1946.

Diagnoses Classified As Chronic for the Purpose of Estimating the Prevalence of Chronic Illness in New York State

Cancer, all sites
Nonmalignant tumors, and tumors nature unspecified
Acute rheumatic fever
Chronic rheumatism, arthritis and gout
Diabetes mellitus
Diseases of the thyroid gland including all types of goiter and parathyroid diseases
Anemia, all forms
Other general diseases
Cerebral hemorrhage (apoplexy), embolism, thrombosis
Other paralysis
Chorea
Neuralgia and neuritis
Nervousness, neurasthenia, and nervous breakdown
Diseases of the eye and blindness
Diseases of the ear and deafness
Diseases of the heart and coronary arteries
Arteriosclerosis and high-blood-pressure
Hemorrhoids
Varicose veins or ulcer, varicocele
Sinusitis
Asthma
Hay fever
Ulcer of the stomach or duodenum
Hernia
Diseases of the gallbladder and liver
Nephritis and other diseases of the kidney, including kidney unspecified
Diseases of the bladder, urethra and urinary passages
Nonvenereal diseases of the male genital organs
Cysts of the ovaries, uterus and tubes
Eczema
Diseases of the bones and joints, except tuberculosis and rheumatism
Lumbago, myalgia, myositis, stiff neck, and other muscular pains
Other diseases of the organs of locomotion
Congenital malformations and other diseases of early infancy
Other and ill-defined causes (including senility)

[a] Classification based on *Manual of the International List of Causes of Death*, 1929 Revision.

tion. Those entering after the first of the year or removed from the list of those eligible for care because of improved economic status or because they moved from the county were not included. Accordingly, the study should not be considered a complete account of the medical care provided for welfare clients in Nassau County during the year.

The diagnosis of the cause of illness was that reported to the Medical Care Division by an attending physician, by a hospital, or by the physician in attendance at the County Home. Diagnoses were coded in the same way as that employed in the National Health Survey, using a copy of the Survey code furnished by Dr. Selwyn D. Collins of the U. S. Public Health Service. The diseases considered as "chronic illness" were those included in the definition of chronic disease in the prevalence studies based on the National Health Survey as listed on the foregoing page. The illnesses reported in the National Health Survey were further defined as having caused at least seven consecutive days of disability or which required hospitalization or caused death. The available records for Nassau County did not furnish information regarding duration of disability, so that it was not possible to apply this further restriction to the cases included in this study. It is probable that very few would have been excluded by this limitation and, in any event, it was considered preferable to record data regarding the medical care furnished all persons suffering from chronic illness during the year.

CHRONIC ILLNESS AMONG RELIEF RECIPIENTS IN NASSAU COUNTY

During the year, 6,340 persons in Nassau County received public aid other than County Home care or assistance solely for hospitalization. Of those receiving public aid, 30 per cent received some form of medical care.[4] [5] The majority of these—over 70 per cent—were suffering from chronic illness. (Tables 31 and 32.) Chronic illness thus accounted for most of the medical problems presented by persons requiring public assistance in Nassau County, partly because of the high incidence of such illness among recipients of Old Age Assistance in which category over three-fifths of the cases of chronic illness in this series occurred. However, even among the other relief classes (Home Relief, Aid to Dependent Children, Aid to the Blind and Veterans Relief) over half the persons requiring medical care had some chronic illness.

Since 1944 was a year of high employment, the proportion of the population on relief in Nassau County at the time of the study probably was at a minimum. The proportion of all chronically ill persons estimated to have received medical care from the Department of Public Welfare was likewise small, less than 8 per cent.

[4] Exclusive of 43 cases receiving care for mental disease or tuberculosis.

[5] It should be emphasized that only persons who received or were eligible for medical care provided by the Department of Public Welfare *throughout the year* are included in this study.

TABLE 31.— *Number and Per Cent of Recipients of Public Assistance Receiving Medical Care,[a] According to Relief Classification, Nassau County, 1944*

TYPE OF PUBLIC ASSISTANCE	Total Persons Receiving Assistance [b]	Number Receiving Medical Care for:					
		ALL ILLNESS [c]		CHRONIC ILLNESS [d]		OTHER ILLNESS	
		Number	Per Cent	Number	Per Cent	Number	Per Cent
Total	6,340	1,899	30.0	1,379	21.8	520	8.2
Old Age Assistance	2,355	1,038	44.1	881	37.4	157	6.7
Home Relief [e]	2,046	608	29.7	418	20.4	190	9.3
Aid to Dependent Children	1,939 [f]	253	13.0	80	4.1	173	8.9

[a] Persons whose history of medical care was not complete for the entire year were excluded from sample.
[b] Received public assistance during year, exclusive of cases receiving hospital care only or who were in County Home or Jones Institute. Data from Bureau of Research and Statistics, New York State Department of Social Welfare.
[c] Exclusive of mental illness and tuberculosis (43 cases).
[d] For list of diagnoses, see Table 1.
[e] Includes a small number of Aid to Blind and Veterans' Relief cases.
[f] Includes 556 adults.

(Table 33.) Among those over 65 years of age, the percentage was three times as great—22.6 per cent. On the basis of this study it appears that even in times of economic prosperity a considerable portion, almost one-fourth, of the care of the aged chronically ill falls upon public relief agencies. Since persons eligible to receive care for less than a year were excluded from the tabulations, the number and percentage of cases of chronic illness recorded are minimal and undoubtedly understate the extent of chronic illness as a relief problem.

MEDICAL CARE PROVIDED FOR RELIEF RECIPIENTS

The available information regarding medical care for relief recipients in Nassau County relates to physicians' services (at home or office), hospital care and nursing home care. Data regarding patients who were in the County Home for any portion of the year have been tabulated separately.

The great majority—86 per cent—of patients were seen by a physician, either at home or in his office. The fact that physicians' services in a hospital or nursing home were not recorded separately probably account for the remaining 14 per cent of patients. Approximately 23 per cent of the patients were hospitalized and 12 per cent received nursing home care. (Table 34.) No important difference is apparent between pa-

TABLE 32.— *Chronic Illness Among Recipients of Public Assistance Receiving Medical Care,[a] Nassau County, 1944*

TYPE OF PUBLIC ASSISTANCE	Receiving Medical Care for:		
	All illness [b]	Chronic illness [c]	
	Number	Number	Per cent of All Illness
Total	1,899	1,379	72.6
Old Age Assistance	1,038	881	84.9
Home Relief [d]	608	418	68.8
Aid to Dependent Children	253	80	31.6

[a] Persons whose history of medical care was complete for entire year.
[b] Exclusive of mental illness and tuberculosis.
[c] For list of diagnoses, see Table 1.
[d] Includes a small number of Aid to Blind and Veterans' Relief cases.

TABLE 33.— *Estimated Prevalence of Chronic Illness and Percentage of Cases Receiving Public Care, Nassau County, 1944*

AGE GROUP (years)	Persons With Chronic Illness				
	Number in County [a]	Receiving care from County Department of Public Welfare			
		In County Home	Public Assistance	Total Number	Per Cent
Total	21,234	166	1,379	1,545	7.3
Under 45 years	9,344	6	182	188	2.0
45–64 years	7,426	41	308	349	4.7
65 years and over	4,464	119	889	1,008	22.6

[a] Estimated by applying age-specific rates from National Health Survey, adjusted for under-enumeration, to population, as of 1940 census.

TABLE 34.— *Per Cent of Patients with Chronic Illness and Other Illness Who Received Various Types of Medical Care, Recipients of Public Assistance, Nassau County, 1944*

TYPE OF ILLNESS	Total Patients		Type of Care					
			Physicians' calls		Hospital care		Nursing home care	
	Number	Per Cent	Number of Patients	Per Cent	Number of Patients	Per Cent	Number of Patients	Per Cent
All illness [a]	1,899	100.0	1,628	85.7	436	23.0	230	12.1
Chronic illness	1,379	100.0	1,196	86.7	312	22.6	201	16.4
Other illness	520	100.0	432	83.1	124	23.8	29	5.6

[a] Exclusive of mental disease and tuberculosis.

tients with chronic illness and those with other illness with respect to the proportion who received physicians' services or hospital care, but the former received nursing home care more than twice as frequently as the latter. In general, a patient with chronic illness required more service of each type than did other patients. (Table 35.) Each chronically ill patient received almost three times as many physician calls, over 50 per cent more hospital-days care, and about two and a half times as many nursing-home-days care as did other patients.[6]

[6] Although "other illness" in the tabulations referred to are for the most part "acute illness" this is not invariably true. The diagnostic classification of chronic illness is not all-inclusive so that a number of long-term illnesses are included in the "other illness" group.

Because of the larger amount of service required for chronically ill patients, the proportion of all medical services they received was even greater than the proportion of such patients in the group studied. (Table 36.) Over 80 per cent of all hospital-days, 87 per cent of physicians' calls, and almost 90 per cent of nursing-home-days were for the care of patients with chronic illness.

COMPARISON WITH NATIONAL HEALTH SURVEY

Comparison of the amount of medical care for chronic illness recorded in Nassau County with that reported by the National Health Survey for New York City in 1935–36 is of interest as an indication of the applicability of the Survey data in estimating present day practice in providing medical care. In Table 37

TABLE 35.— *Average Number of Specified Units of Service Provided for Recipients of Public Assistance Receiving Medical Care,[a] Nassau County, 1944*

TYPE OF SERVICE AND ILLNESS	Number of Persons Receiving the Specified Service	Units of Service Provided (Physicians' Calls, Hospital-Days, Nursing-Home-Days)	
		Total Number	Per Person with Specified Type of Illness[b]
All illness (1,899 persons)[c]			
Physicians' service (calls)	1,628	19,108	10.1
Hospitalization (days)	436	11,433	6.0
Nursing home care (days)	230	43,635	23.0
Chronic illness (1,379 persons)[d]			
Physicians' service (calls)	1,196	16,698	12.1
Hospitalization (days)	312	9,263	6.7
Nursing home care (days)	201	37,897	27.5
Other illness (520 persons)			
Physicians' service (calls)	432	2,410	4.6
Hospitalization (days)	124	2,170	4.2
Nursing home care (days)	29	5,738	11.0

[a] Persons whose history of medical care was complete for the entire year.
[b] Total units of specified service divided by number of patients within each group, i.e., all illness, chronic illness, other illness.
[c] Exclusive of tuberculosis and mental illness.
[d] For list of diagnoses included, see Table 1.

TABLE 36.— *Medical Care for Chronic Illness and Other Illness Among Recipients of Public Assistance, Nassau County, 1944*

TYPE OF SERVICE	Units of Service[a] Provided for					
	All illness[b]		Chronic illness		Other illness	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Physicians' calls	19,108	100.0	16,698	87.4	2,410	12.6
Hospital-days	11,433	100.0	9,263	81.0	2,170	19.0
Nursing-home-days	42,635	100.0	37,897	88.9	5,738	11.1

[a] Physicians' calls, hospital-days, nursing-home-days.
[b] Exclusive of tuberculosis and mental illness.

physicians' services, and in Table 38, hospital-days for chronic illness in the two studies are compared. In spite of the difference in time and in the population groups covered, the number of physicians' calls per person and the number of hospital-days per hospitalized illness in the two series are essentially the same. Although greater differences appear with respect to services and hospital-days for some of the disease subgroups, they are attributable largely to the small numbers in the Nassau County samples, with consequently high sampling variations. For chronic illness as a whole, the National Health Survey data for 1935–36 would have furnished an accurate prediction of the number of physicians' calls per patient and of hospital-days per hospitalized illness provided for the chronically ill among Nassau County recipients of public assistance in 1944.

Although 25 per cent less chronic illness in the latter group was hospitalized than would be indicated from the experience recorded by the National Health Survey, this finding is not unexpected. (Table 39.) It is known that there has been a decrease in long-term hospitalization for chronic disease throughout the State in recent years, and an increase in short-term hospitalization for acute illness. In addition, in Nassau County the ratio of general hospital beds per 1,000 population (2.0 beds) is well below the ratio, 3.7 beds, for the upstate area,[7] so that hospital care for the chronically ill would be correspondingly more difficult to obtain. It is probable that the National Health Survey gives a more accurate picture of the need for hospital care of chronic illness than does the more recent study.

[7] New York State Commission to Formulate a Long Range Health Program, *Planning for the Care of the Chronically Ill in New York State—Regional Aspects.* Legislative Document (1945) No. 78A, page 85.

TABLE 37.— *A Comparison of the Average Amount of Physicians' Services Rendered Per Individual, by Diagnosis (for Selected Chronic Diagnoses), Determined from Nassau County Data with Results of National Health Survey*

CHRONIC DIAGNOSIS	Physicians' Services (Calls)	
	National Health Survey [a]	Nassau County [b]
Total chronic illness [c]	11.1	12.1
Cardiovascular-renal diseases	13.8	12.7
Cancer and other tumors	11.8	9.8
Rheumatism and allied diseases	10.9	13.8
Diseases of the bladder, urethra, urinary passages, male genital organs	7.8	4.5
Ulcer of the stomach or duodenum, diseases of the gallbladder and liver	10.2	14.2
Diabetes mellitus	13.4	17.4

[a] Source: Dorothy F. Holland, *Sickness in a Metropolitan Community* (The Results of the National Health Survey in New York City) 1935–1936, U. S. Public Health Service. Unpublished.
[b] Data from a study of the records of the Medical Care Division, Nassau County Department of Public Welfare, for patients receiving welfare aid and eligible for medical care for entire year of 1944.
[c] Illnesses due to diagnoses classified as chronic. See Table 1 for list of diagnoses included.

TABLE 38.— *Comparison of the Rate of Hospital-days per Hospitalized Illness for Certain Chronic Illnesses, as Determined from the National Health Survey, 1935–1936, and from Data Supplied by the Nassau County Department of Public Welfare*

DIAGNOSIS	Hospital-Days Per Hospitalized Illness	
	National Health Survey [a]	Nassau County [b]
Total, chronic illness [c]	30.4	29.7
Cardiovascular-renal diseases	31.1	27.9
Cancer and other tumors	24.4	24.8
Rheumatism and allied diseases	36.3	39.6
Diseases of the bladder, urethra, urinary passages, male genital organs	23.4	23.1
Ulcer of stomach or duodenum, diseases of gallbladder and liver	21.2	33.6
Diabetes mellitus	31.1	43.7

[a] Source: Dorothy F. Holland, *Sickness in a Metropolitan Community* (The Results of the National Health Survey in New York City), 1935–1936, U. S. Public Health Service. Unpublished. Ratios adjusted for under-enumeration of 24 per cent in admissions and of 7 per cent in hospital-days.
[b] Data from a study of the records of the Medical Care Division, Nassau County Department of Public Welfare, for patients receiving welfare aid and eligible for medical care for entire year of 1944.
[c] Illnesses due to diagnoses classified as chronic. See Table 1 for list of diagnoses included.

TABLE 39.— *Per Cent of Chronically Ill Patients Hospitalized Per Year and Total Number of Hospital-days for Chronic Illness [a] in Upstate New York, 1940*

Estimated from (1) Nassau County Study and (2) National Health Survey

HOSPITALIZATION	Basis of Estimate	
	Nassau County Study (1944)	National Health Survey (1935–1936)
Per cent of chronic illness hospitalized	22.6	30.0
Number of hospital-days for chronic illness [b]	2,358,000	3,750,000

[a] Illness due to chronic diseases. For list of diagnoses included, see Table 1.
[b] Estimated by applying hospital-days per person for each age-group to estimated distribution of persons with chronic illness in upstate New York.

NURSING HOME CARE FOR CHRONIC ILLNESS IN NASSAU COUNTY

With the generally decreased availability of hospital beds for the care of the chronically ill has come a greatly increased demand for and use of other institutional facilities for these patients, especially public homes and private nursing homes. In Nassau County, recipients of public assistance were provided over four times as many days care in nursing homes as in hospitals. For chronic illness a total of 37,897 nursing-home-days care was furnished, compared with 9,263 hospital days. The average number of days of nursing home care per patient sent to nursing homes was even higher for "other illness" than for "chronic illness," so that all patients sent to nursing homes may be assumed to be problems in long-term care. (Table 41.)

In 1944 there were in Nassau County 589 beds in 20 private nursing homes known to the New York State Department of Social Welfare.[8] At maximum occupancy these could provide 214,985 bed-days care. Recipients of public assistance occupied 43,635 bed-days, or approximately 20 per cent of the maximum total possible. Confining attention to patients with "chronic illness," as defined in this study, 37,897 bed-days care was provided, or a little less than 18 per cent of the maximum total. (Tables 40 and 41.)

These data are of interest as a possible index of the number of beds needed for nursing home care of the

[8] Communication from the Bureau of Research and Statistics, New York State Department of Social Welfare.

TABLE 40.— *Estimated Nursing-home-days Care and Beds Needed, New York State, exclusive of New York City, on Basis of Care Provided by Nassau County Department of Public Welfare, 1944*

AGE GROUP	Number of Persons with Chronic Illness [a]	Nursing-home-days per Person per Year [b]	Nursing home-days
Total	.....	....	7,313,600
Under 25 years	53,000	....	.....
25–44 years	75,000	12.2	915,000
45–64 years	118,000	27.4	3,233,200
65 years and over	98,000	32.3	3,165,400

[a] Based on 1940 population. For age-specific prevalence rates for chronic illness, see "Chronic Illness in New York State," Table 10, column 2, page 14.
[b] See Table 41.

TABLE 41.— *Average Amount of Medical and Hospital Service Rendered Persons on Relief [a] in Nassau County, 1944, by Age*

AGE GROUP	Units of Service per Individual Receiving Any Type of Service			Units of Service per Individual Receiving Specified Type of Service		
	Physicians' Services (calls)	Hospital-days	Nursing-home days	Physicians' Services (calls)	Hospital-days	Nursing-home-days
			All Illness [b]			
All ages	10.1	6.0	23.0	11.7	26.2	190
Under 25 years	4.2	3.4	[c]	4.8	14.5	[c]
25–44 years	8.4	10.1	13.4	10.9	30.6	122
45–64 years	13.5	7.6	28.2	16.0	38.0	182
65 years and over	11.1	6.0	30.5	12.9	26.2	199
			Chronic Illness [d]			
All ages	12.1	6.7	27.5	14.0	29.7	189
Under 25 years	5.2	7.0	[c]	5.8	23.7	[c]
25–44 years	10.9	10.7	12.2	13.4	38.1	98
45–64 years	14.5	7.9	27.4	17.0	38.6	176
65 years and over	12.3	6.0	32.3	14.1	27.1	199
			Other Illness			
All ages	4.6	4.2	11.0	5.6	17.5	198
Under 25 years	3.8	1.7	....	4.4	8.5	....
25–44 years	4.9	9.3	15.1	6.9	23.2	170
45–64 years	8.8	6.3	32.6	10.5	34.5	217
65 years and over	4.4	6.1	20.4	5.5	22.0	194

[a] Persons whose history of medical care was complete for the entire year.
[b] Exclusive of mental illness and tuberculosis.
[c] Data not sufficient to calculate rate.
[d] For list of diagnoses included, see Table 1.

chronically ill throughout the State on the assumption that the amount of such care provided for welfare clients in Nassau County approximates the actual need. For example, applying the number of nursing-home-days care per person in each age-group provided in the Nassau County experience to the number of estimated chronically ill persons in each age-group in upstate New York, there would be required in the upstate area a total of 7,313,000 nursing-home-days per year or, at 100 per cent capacity, 20,000 nursing home beds. This is in contrast to a total of 6,139 beds in all nursing homes certified by local departments of welfare in 1946, plus an estimated 6,000 beds[9] in nursing homes not certified.

Estimates of the nursing home care needed, based on that provided to welfare clients in Nassau County, may be too high (a) because of the shortage of general hospital beds in Nassau County and (b) because chronically ill persons who also need nursing home care may be more frequent among the indigent than among other persons with chronic illness. The latter source of error is lessened to some extent by the restriction of the study to persons already on the relief rolls on the first of the year, thus eliminating those who entered during the year because they needed nursing home care. The lack of hospital beds for the chronically ill is general throughout the State, but may be relatively greater in Nassau County than elsewhere because of the lower ratio of general hospital beds to population in Nassau County. This possibility may be more than counterbalanced in estimating nursing-home-days by subtracting the number of hospital-days care needed to bring the Nassau County hospital-days for chronic illness up to that recorded in the National Health Survey. For example, according to the Survey, 3,750,000 hospital-days would be needed for chronic illness in upstate New York instead of 2,358,000 days, according to the experience of the Nassau County Department of Public Welfare. The difference of approximately 1,400,000 bed-days, if subtracted from the 7,300,000 nursing-home-days previously estimated, gives 5,900,000 nursing-home-days or, 16,000 nursing home beds at maximum occupancy, needed in the upstate area, or 2.5 beds per 1,000 population (1947). If this estimate is approximately correct, there may be a shortage of about 4,000 nursing home beds at present in the State outside of New York City, assuming 12,000 beds to be the total now available.

ILLNESS AMONG COUNTY HOME INMATES

In addition to the recipients of public assistance who received medical care, as described above, there were 235 persons in the County Home[10] at some time during the year. These represent all those admitted to the County Home (and Jones Institute) during the year through the Department of Public Welfare. Seventy per cent of these had some chronic illness. (Table 42.)

TABLE 42.— *Chronic Illness Among Inmates in the Nassau County Home [a], by Sex and Age, 1944*

AGE AND SEX	INMATES		
	Total Number	WITH CHRONIC ILLNESS [b]	
		Number	Per Cent
Total	235	166	70.6
Male	146	96	65.8
Female	89	70	78.6
Under 45 years	11	6	54.5
45–64 years	65	41	63.1
65–74 years	59	39	66.1
75 years and over	100	80	80.0

[a] Includes Jones Institute.
[b] For list of diagnoses, see Table 1.

This percentage is in close agreement with that reported in studies of public home inmates in other states.[11] The proportion of inmates who were chronically ill was highest in the oldest age groups, but was over 50 per cent even in those younger than 45 years.

Approximately two-thirds of the County Home inmates were males and over two-thirds were over 65 years of age. The average length of stay for the entire group was 258 days and, for the chronically ill, 246 days. All told, those who had some chronic illness were in the County Home for a total of 40,836 days during the year, or about 3,000 days more than the number of nursing-home-days provided for the chronically ill by the Department of Public Welfare in the same period.

SUMMARY

This study of medical care provided to recipients of public aid in Nassau County in 1944 indicates that chronic illness is the predominant medical problem among these economically dependent persons. Almost one-fourth of this dependent population had some chronic disease and over 70 per cent of all medical care provided was for chronic illness. The quantity of care furnished for chronic illness in this group, measured in physicians' services and hospital-days per hospitalized illness, was essentially similar to that reported in the National Health Survey, confirming

[9] The Division of Vital Statistics, New York State Department of Health, had records of 419 nursing homes other than those certified by local departments of public welfare. It has been assumed that these had the same average bed capacity as the latter. The number of nursing homes in addition to these two groups is not known.

[10] Includes Jones Institute. The County Home and Infirmary has a bed capacity of 138; Jones Institute has a maximum capacity of 100; the latter is used only partly for relief clients.

[11] State of Illinois, Committee to Investigate Chronic Diseases among Indigents, *Interim Report to the Sixty-Fourth General Assembly*, June 7, 1945, page 9. Maryland Legislative Council, Research Division, *Report on Almshouses in Maryland*, April 1940.

the reliability of the latter as an index of prevailing practice. The amount of nursing home care provided for chronic illness in Nassau County indicates that an estimated minimum of 16,000 nursing home beds are needed in upstate New York for this purpose. The amount of care provided in the County Home for chronically ill persons was somewhat greater, suggesting that at least an equal number of beds are needed for the medical domiciliary type of care for the chronically ill.

SUPPLEMENTARY TABLE

TABLE 43.— *Number and Per Cent Distribution of Recipients of Public Assistance Receiving Medical Care, by Primary Diagnosis, Nassau County, 1944* [a]

DIAGNOSIS	Number	Per Cent
Total [b]	1,899	100.0
Chronic illness [c]	1,379	72.6
Cardiovascular-renal diseases	722	38.0
Rheumatism and allied diseases	146	7.7
Blindness and diseases of the eye	69	3.6
Cancer and other tumors	66	3.5
Diabetes mellitus	52	2.7
Diseases of the bladder, urinary passages, and male genital organs	49	2.6
Sinusitis, asthma, hay fever	46	2.4
Ulcers of the stomach and duodenum and diseases of the liver and gallbladder	41	2.2
Deafness and diseases of the ear	38	2.0
Other chronic illness [c]	150	7.9
Illness not defined as chronic	520	27.4
Diseases of the respiratory system	225	11.8
Accidents and impairments	117	6.2
Diseases of the digestive system [d]	49	2.6
Communicable diseases	46	2.4
Other non-chronic illnesses [e]	83	4.4

[a] Persons whose history of medical care was complete for the entire year.
[b] Exclusive of mental illness and tuberculosis.
[c] For list of diagnoses included, see Table 1.
[d] Except ulcers of stomach and duodenum, diseases of the liver and gallbladder, and hernia.
[e] Includes diseases of lymphatic system, diseases of the skin, and diseases of the puerperal state and female genital organs.

TABLE 44.— *Average Amount of Medical, Hospital, and Nursing Home Care Per Individual by Diagnosis (for Selected Chronic Diagnoses) Provided for Recipients of Public Assistance,* [a] *Nassau County, 1944*

PRIMARY CHRONIC DIAGNOSIS	Number of Individuals	Average Service per Individual With Specified Diagnosis — Total Service		
		Physicians' Services (Calls)	Hospital-days	Nursing-home-days
Chronic illness, total [b]	1,379	12.1	6.7	27.5
Cardiovascular-renal diseases	722	12.7	5.4	32.6
Rheumatism and allied diseases	146	13.8	4.3	21.6
Blindness and diseases of the eye	69	5.8	1.1	17.8
Cancer and other tumors	66	9.8	13.9	36.6
Diabetes mellitus	52	17.4	16.0	39.5
Diseases of the bladder, urinary passages and male genital organs	49	4.5	14.6	10.3
Sinusitis, asthma, hay fever	46	14.7	3.5	8.0
Ulcers of the stomach and duodenum, diseases of the liver and gallbladder	41	14.2	11.5	0.6

[a] Persons whose history of medical care was complete for the entire year.
[b] For list of diagnoses included, see Table 1.

TABLE 45.— *Type and Amount of Medical and Hospital Service Provided to Recipients of Public Assistance Receiving Medical Care,[a] for Selected Chronic Diagnoses, Nassau County, 1944*

PRIMARY CHRONIC DIAGNOSIS	Number of Individuals	Total Service [b]					
		Physicians' services (calls)		Hospital-days		Nursing home days	
		Number	Per Cent	Number	Per Cent	Number	Per Cent
Chronic illness, total [c]	1,379	16,698	100.0	9,263	100.0	37,897	100.0
Cardiovascular-renal diseases	722	9,147	54.8	3,903	42.1	23,521	62.1
Rheumatism and allied diseases	146	2,014	12.1	634	6.8	3,151	8.3
Blindness and diseases of the eye	69	400	2.4	76	0.8	1,227	3.2
Cancer and other tumors	66	646	3.9	916	9.9	2,414	6.4
Diabetes mellitus	52	906	5.4	830	9.0	2,052	5.4
Diseases of the bladder, urinary passages and male genital organs	49	219	1.3	717	7.7	505	1.3
Sinusitis, asthma, hay fever	46	676	4.0	160	1.7	366	1.0
Ulcers of the stomach and duodenum, diseases of the liver and gallbladder	41	581	3.5	470	5.1	24	0.1

[a] Persons whose history of medical care was complete for the entire year.
[b] Includes service for concurrent "non-chronic" diagnoses.
[c] For list of diagnoses included, see Table 1.

TABLE 46.— *Number and Per Cent Distribution of Persons Hospitalized and Hospital-days by Length of Stay, Recipients of Public Assistance [a] in Nassau County, 1944*

LENGTH OF STAY	Persons Hospitalized			Hospital-Days		
	Number	Per Cent	Cumulative Per Cent [b]	Number	Per Cent	Cumulative Per Cent [b]
All Illness [c]						
Total	436	100.0	.....	11,433	100.0	.....
1– 5 days	102	23.4	100.0	255	2.2	100.0
6–10 days	76	17.4	76.6	626	5.5	97.8
11–15 days	59	13.5	59.2	762	6.7	92.3
16–20 days	35	8.0	45.7	644	5.6	85.6
21–25 days	29	6.7	37.7	673	5.9	80.0
26–50 days	69	15.8	31.0	2,412	21.1	74.1
51–75 days	36	8.3	15.2	2,339	20.5	53.0
76–100 days	11	2.5	6.9	972	8.5	32.5
101–366 days	19	4.4	4.4	2,750	24.0	24.0
Chronic Illness [d]						
Total	312	100.0	.....	9,263	100.0	.....
1– 5 days	60	19.2	100.0	162	1.7	100.0
6–10 days	45	14.4	80.8	373	4.0	98.3
11–15 days	41	13.2	66.4	537	5.8	94.3
16–20 days	29	9.3	53.2	526	5.7	88.5
21–25 days	26	8.3	43.9	602	6.5	82.8
26–50 days	55	17.7	35.6	1,947	21.0	76.3
51–75 days	29	9.3	17.9	1,748	18.9	55.3
76–100 days	11	3.5	8.6	972	10.5	36.4
101–366 days	16	5.1	5.1	2,396	25.9	25.9
Other Illness						
Total	124	100.0	.....	2,170	100.0	.....
1– 5 days	42	33.9	100.0	93	4.3	100.0
6–10 days	31	25.0	66.1	253	11.7	95.7
11–15 days	18	14.5	41.1	225	10.4	84.0
16–20 days	6	4.8	26.6	118	5.4	73.6
21–25 days	3	2.4	21.8	71	3.3	68.2
26–50 days	14	11.3	19.4	465	21.4	64.9
51–75 days	7	5.7	8.1	591	27.2	43.5
76–100 days	...	.....	2.4	.....	.....	16.3
101–366 days	3	2.4	2.4	354	16.3	16.3

[a] Persons whose history of medical care was complete for the entire year.
[b] Per cent exceeding the lower limit of class specified.
[c] Exclusive of mental illness and tuberculosis.
[d] For list of diagnoses included, see Table 1.

TABLE 47.— *Number and Per Cent Distribution of Persons Placed in Nursing Homes and Nursing-home-days by Length of Stay, Recipients of Public Assistance [a], Nassau County, 1944*

LENGTH OF STAY	Persons Placed in Nursing Home			Nursing-Home-Days		
	Number	Per Cent	Cumulative Per Cent [b]	Number	Per Cent	Cumulative Per Cent [b]
All Illness [c]						
Total	230	100.0	.....	43,635	100.0	.....
1– 50 days	53	23.0	100.0	920	2.1	100.0
51–100	35	15.2	77.0	2,565	5.9	97.9
101–200 days	39	17.0	61.8	6,058	13.9	92.0
201–300 days	26	11.3	44.8	6,630	15.2	78.1
301–365 days	24	10.5	33.5	8,064	18.5	62.9
366 days	53	23.0	23.0	19,398	44.4	44.4
Chronic Illness [d]						
Total	201	100.0	.....	37,897	100.0	.....
1– 50 days	46	22.9	100.0	812	2.2	100.0
51–100 days	33	16.4	77.1	2,392	6.3	97.8
101–200 days	32	15.9	60.7	5,015	13.2	91.5
201–300 days	23	11.5	44.8	5,811	15.3	78.3
301–365 days	22	10.9	33.3	7,397	19.5	63.0
366 days	45	22.4	22.4	16,470	43.5	43.5
Other Illness						
Total	29	100.0	.....	5,738	100.0	.....
1– 50 days	7	24.1	100.0	108	1.9	100.0
51–100 days	2	6.9	75.9	173	3.0	98.1
101–200 days	7	24.1	69.0	1,043	18.2	95.1
201–300 days	3	10.4	44.9	819	14.3	76.9
301–365 days	2	6.9	34.5	667	11.6	62.6
366 days	8	27.6	27.6	2,928	51.0	51.0

[a] Persons whose history of medical care was complete for the entire year.
[b] Per cent exceeding lower limit of class specified.
[c] Exclusive of mental illness and tuberculosis.
[d] For list of diagnoses included, see Table 1.

TABLE 48.— *Number and Per Cent Distribution of Illnesses Among Inmates of the Nassau County Home,[a] by Diagnosis, 1944*

DIAGNOSIS	Number	Per Cent
Total	200	100.0
Chronic illness [b]	166	83.0
Cardiovascular-renal diseases	109	54.5
Rheumatism and allied diseases	15	7.5
Cancer and other tumors	5	2.5
Blindness and diseases of the eye	5	2.5
Other chronic diseases [c]	32	16.0
Other illness	34	17.0
Mental deficiency and other diseases of the nervous system	11	5.5
Pneumonia, influenza, etc	9	4.5
Accidents	7	3.5
Tuberculosis	1	0.5
Other diagnoses [d]	6	3.0

[a] Includes Jones Institute. Does not include 35 inmates with no illness reported.
[b] For list of diagnoses, see Table 1.
[c] Includes diabetes, diseases of the ear, hernia, diseases of the bladder, congenital malformations.
[d] Includes acute communicable diseases, indigestion, diarrhea.

REGIONAL ASPECTS OF PLANNING

Recommendation 2 of the proposed chronic illness program indicates that for the purposes of planning for the care of the chronically ill, New York State, exclusive of New York City, be divided into 5 regions. Before this Recommendation was made, the regional aspects of the distribution of all medical care were carefully explored by the Commission and the results published in a previous report, Legislative Document (1945), No. 78A, *Planning for the Care of the Chronically Ill in New York State —Regional Aspects*, of which this is a summary.

> "Care for chronically ill patients might best be developed on a regional basis in upstate New York. The number of counties comprising each region would depend upon the distribution of population, the availability of transportation, medical facilities and personnel of each area. The center of care for each region would be a hospital for chronic diseases closely related to a general hospital equipped with adequate diagnostic and therapeutic resources both as regards personnel and facilities, a teaching institution of high quality, the envisioned local custodial institutions, the home bedside nursing program, the practicing physicians and the out-patient services within the region. If properly developed, this coordination would insure early diagnosis, a high quality of continuous medical care and utilize the maximum contribution that each institution and professional group could make to the welfare of the patient. This service cannot usually be provided in less populous localities because of the prohibitive per diem cost of a small operating unit and the limited number of highly qualified professional personnel. These factors would compensate for any disadvantage accruing to patients living at a distance from the hospital." [1]

The above quotation summarizes very succinctly the why and how of the regional aspects of the distribution of medical care, particularly as they apply to the chronically ill, who make up a large portion of the total number of ill persons.

Even before this statement was made, the Commission had been impressed by a natural tendency toward the distribution of medical care on a regional basis.

Accordingly, the regional pattern, especially as it concerns the approved general hospital and the establishment of comprehensive health and medical care administrative services, was the subject of one of the Preliminary Recommendations in the first Commission Report:[2]

> "9. A reorientation of the role of the approved general hospital, public or private, in the preventive and curative services of the community, so that:
>
> a. Unnecessary duplication of accommodations or wasteful competition on a local or regional basis may be eliminated;
>
> b. The general practitioner and his patient may make more effective use of the consultant, specialist and laboratory services and modern therapeutic and diagnostic equipment which should be available in an approved general hospital and out-patient department.
>
> c. The general practitioner may have an increased opportunity to treat cases that fall within his sphere of competence, in the patient's home, in the physician's office, or in the hospital. Also, that the general practitioner may have a better opportunity to enjoy the professional benefits incident to working on a hospital staff with his colleagues.
>
> d. Social service in the hospital may be integrated with community social services to provide more effective methods of communication between the hospital and the general practitioner in the interests of continuity of treatment to promote the patient's restoration to health or the best possible social adjustment in the light of his condition."

In the report dealing with the County Studies[3], which were made of four selected counties of the State, Washington, Ontario, Seneca and Niagara, one of the conclusions reached was as follows:

> "THE REGIONAL ASPECT — Medical care in New York State, both as respects services and facilities, seems to be more often on a regional than on a county or local base, particularly with the advent of modern transportation.
>
> In Washington County, it was noted that actually the medical and hospital service is regional, the residents making substantial use of specialists, therapists and hospitals in Glens Falls, Ticonderoga, Troy, Albany and Rutland, Vermont. Some of the residents of neighboring counties and Vermont use Washington County facilities. Although there are a number of qualified specialists and consultants in Ontario County, some special therapy and surgical services are availed of in nearby Rochester. Conversely, local hospital facilities are used by residents of other counties and Pennsylvania. Seneca County is not self-sufficient, even in peacetime, in general hospital beds.

[1] Statement of Conference to Discuss the Need for and Means of Formulating a State Program for the Care of the Chronically Ill—held at the Commission office in New York City, September 21, 1944. See supra, p. 36.

[2] Legislative Document (1939), No. 97, Preliminary Report of New York State Commission to Formulate a Long Range Health Program, p. 5.

[3] The four County Studies are reprinted in Legislative Document (1944), No. 56A, 1943–1944 Report of the New York State Commission to Formulate a Long Range Health Program, also known as New York State Health Preparedness Commission, p. 27. The object of each of the County Studies was (1) to indicate the health and medical care facilities and services available in the various counties considered, evaluate their effectiveness and, on the basis of fact, make suggestions for the improvement of these services and (2) to provide the Commission with information, enabling it to interpret the local viewpoint and problems and estimate the effect that any governmental proposal may have upon these areas.

approved laboratory service, consultant service, special therapy and special surgery. Although providing some of these services, it is partially dependent on neighboring Auburn, Geneva, Ithaca, Rochester and Syracuse. Under prewar conditions, although Niagara County was relatively self-sufficient in health and medical care facilities, it depended on Buffalo and Rochester for highly specialized diagnostic, surgical and therapy services.''[4]

These studies confirmed the theory that because of a demand for quality medical service, there is a natural tendency to use health and medical care facilities on a regional basis. Patients went to places where they thought they could receive the best treatment for what ailed them. This included not only medical personnel but hospital and nursing facilities. The Commission has always considered the quality of medical care of paramount importance and ways and means of improving it have been the subject of continued investigation. The natural tendency to use health and medical care facilities on a regional basis because of a demand for quality medical service is of such vital importance that it must be carefully considered in any long-range health planning. The teaching resources, personnel, technical services and facilities in each area, grouped around a center of medical quality, if properly developed and coordinated, can be of invaluable assistance in making medical care of good quality available to all who wish to use it.

Since the chronically ill constitute a large segment of the total of persons needing medical care, the medical, hospital, nursing and public health services which the chronically ill receive, must be furnished by the same physicians, nurses, institutions and agencies rendering service to other groups. Hence, any intelligent exploration of the regional concept, to be complete, would have to consider not only the needs of the chronically ill but the needs of all members of the population requiring medical care. The fundamental questions posed in the distribution of medical care to the chronically ill are similar to those involved in the distribution of quality medical service generally. It was from this point of view that the Commission began its preliminary work to determine the geographical boundaries of the natural regional pattern of medical, hospital and allied care, including public health and social welfare services, as it affects the chronically ill in New York State.

As originally carried on and set forth in a previous report[5], the initial work of the Commission was directed toward ascertaining the logical geographical boundaries of projected health service regions and districts and proposing primary and secondary medical care centers in New York State, always taking into consideration the needs of all sick persons, not only the chronically ill. The outlines submitted were tentative and made for the purposes of broad planning, bearing in mind that further discussion and actual operation might indicate the desirability and necessity of change.

The teaching resources, manpower, technical services and facilities in each area, grouped around a center of medical quality, were considered a fundamental point in arriving at any conclusion.

In determining these tentative boundaries a variety of characteristics of the State and its population were carefully considered. These included the following: distribution of population, geography, transportation facilities, current administrative areas of departments and agencies, location of physicians in relation to the medical schools from which they graduated, natural flow of population seeking hospital care as measured by experience with public assistance patients, the flow of patients requiring hospitalization for the treatment of cancer, population flow with respect to trading centers, and the present location of medical centers.

The maps setting forth these proposed geographical boundaries were preliminarily released in June, 1945. Indicating the trends that future planning might take, they met with widespread interest in the various State departments, were useful to communities envisaging the development of hospital services and have been considered and provisionally applied as the basis for the hospital survey and plan of the Joint Hospital Board of the New York State Postwar Public Works Planning Commission, in its work relative to Public Law 725, the Hospital Survey and Construction Act.

Medical societies, medical schools and scientific and lay organizations concerned with the quality of medical care and its distribution have indicated not only the desirability but the inevitability of regional planning. The manner in which communities are taking steps toward local planning of health facilities is an indication of their realization that regional planning is for their best interests. And it must never be forgotten that in the health field a great many proposals only begin to work when they are accepted locally.

THE GEOGRAPHICAL BOUNDARIES

The factors weighed in attempting to arrive at tentative regional and district boundaries have previously been set forth.

Careful analyses were made of the proposed health service regions and districts, exclusive of New York City, which took into consideration distribution of population, land area, population per square mile, age distribution of population, proportion of population residing in urban and rural areas, number of general and allied special hospitals, total bed capacity, population per hospital bed, number of hospitals according to size, general hospital bed capacity, number of deaths from all causes exclusive of tuberculosis and ratio of deaths to beds, percentage of hospital bed capacity registered by the American Medical Association and approved by the American College of Surgeons, and the number of physicians, number of spe-

[4] *Ibid*, pp. 15–16.

[5] Legislative Document (1945), No. 78A, *Planning for the Care of the Chronically Ill in New York State—Regional Aspects.*

cialists, ratio of physicians to population and ratio of physicians to specialists.

In general, the several factors evaluated follow lines of distribution which are reasonably consistent with and summarized by the marketing map published by Hearst Magazines, Inc., in 1942. (Figure 11.) This map is the result of an extensive survey embracing all of the factors mentioned, excepting those of a medical nature, and is an accepted standard for commercial planning.

With few exceptions, each city designated on this map as a Principal Trading Center has in it at least 100 general hospital beds (exclusive of mental disease hospitals, tuberculosis sanatoria and Veterans' Facilities) listed by the American Medical Association and/or approved by the American College of Surgeons. The exceptions are: Malone (82 beds); Saranac Lake (50 beds); and Johnstown (0 beds), which, however, is contiguous to Gloversville, with more than 100 general hospital beds.

Conversely, every city, town or village which has 100 or more general hospital beds appears on the map as a trading center, principal, secondary, or rural, with the exception of Clifton Springs and Valhalla.

The foregoing facts indicate that, for the most part, hospital facilities tend to concentrate in the same centers as commercial and business facilities. The flow of population toward trading centers probably reflects natural geographical boundaries and transportation facilities and therefore should serve as a reasonable guide for determining natural centers for health services.

The Health Service Regions

There are five principal medical centers in the State, located in Buffalo, Rochester, Syracuse, Albany and New York City. Each of these embraces a group of first class hospitals and an accredited medical school. New York City has five accredited medical schools. Since these centers fulfill all of the basic requirements of a potential regional medical center, and are distributed quite logically across the State, they have been selected as the regional medical centers, and boundaries for five "health service regions and districts" have been described about them, Figure 12, in accordance with the natural population trends as shown in Figure 11. The boundaries, for reasons of administrative expediency, were drawn along county lines. These five areas were proposed as the five main health service regions.

It is expected that further study and experience may indicate the need for modification of these boundaries. After review by those departments and agencies concerned, appropriate changes should be agreed upon and the plan should stand as the fundamental structure upon which all future planning and development of medical and health services and facilities will be based.

The five health service regions are the main areas in which all facilities and services should be interrelated with the regional center at the hub. The services available in each region, with only rare exceptions, should be comprehensive and self-sufficient. The health service regions which are large and all-inclusive are to be distinguished from the smaller health service districts which they embrace.

Broadly considered, the regional medical centers have two service functions: "inflow" services concerned with the routing of patients or diagnostic specimens to a center where larger or special facilities are available; and "outflow" services from the centers to smaller districts in connection with clinical and diagnostic aids, teaching and supplying of interns.

The proposed boundaries would, in general, serve to indicate the limits of outflow services which must be sharply defined for the purpose of administrative organization. They would not necessarily impose any limitations upon the place to which a general practitioner might refer a patient requiring hospitalization or consultation, nor with the place to which a patient might go to seek medical advice. In other words, there is no intention to attempt to interfere with the right of the patient to his choice of physician or hospital.

Since the regions have been developed with the normal travel routes and flow of trade and business relationships in mind, it is quite likely that the majority of patients would normally choose to seek care within their primary region. The ultimate educational effect of the regional association of services and facilities might be expected to further promote this usage.

Persistent interchange of patients between regions outside of the State may be expected, but this does not constitute an obstacle to the smooth operation of the plan. It should be noted also that there are a number of areas in which the normal flow of patients will not conform to State boundaries. This must be taken into consideration in planning for hospital facilities and the planning and development of outflow services for primary and secondary centers. State lines, and even national boundaries in the case of New York State, do not form natural divisions in respect to certain of the services and functions of the medical and health centers.

The Health Service Districts

In determining the logical smaller service districts, essentially the same method has been employed, that is to say, the natural flow of population to trade centers has been followed as presented in Figure 11. It should be pointed out, however, that the following suggestions with respect to the smaller health service districts are regarded as entirely tentative. Planning at a State level without particularized information with regard to local problems and situations should not be definitive.

Figure 12 shows the distribution of the health service districts within the larger regions already described. In this map the health service districts are defined along the lines of county boundaries. The administrative functions of the health service districts, to the extent that financial participation by localities is likely to be involved, will have to follow the lines of

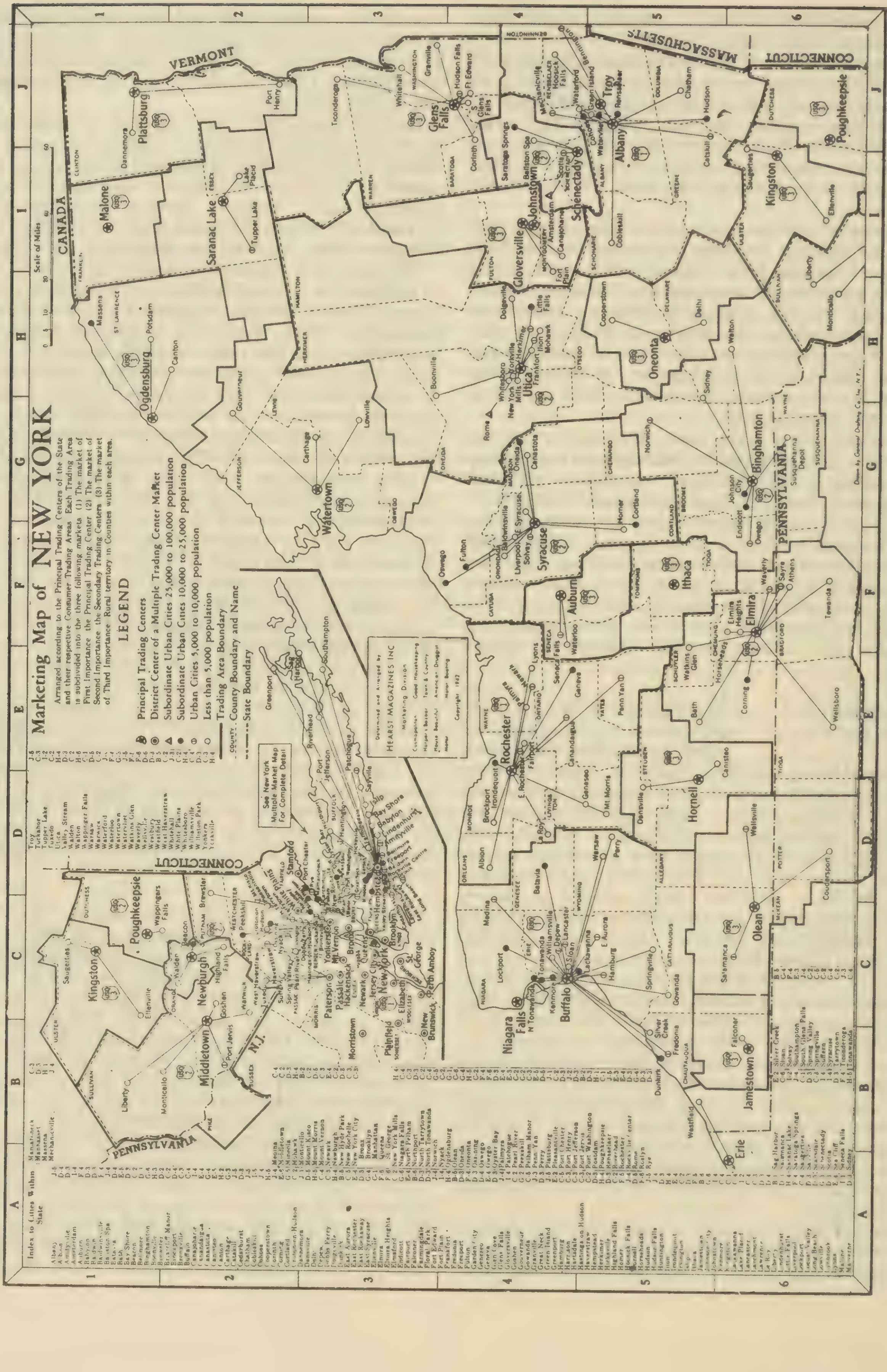
Marketing Map of NEW YORK
Arranged according to the Principal Trading Centers of the State and their respective Consumer Trading Areas. Each Trading Area is subdivided into the three following markets (1) The market of First Importance the Principal Trading Center (2) The market of Second Importance the Secondary Trading Centers (3) The market of Third Importance Rural territory in Counties within each area.
LEGEND
Principal Trading Centers
District Center of a Multiple Trading Center Market
Subordinate Urban Cities 25,000 to 100,000 population
Subordinate Urban Cities 10,000 to 25,000 population
Urban Cities 5,000 to 10,000 population
Less than 5,000 population
Trading Area Boundary
County Boundary and Name
State Boundary
See New York Multiple Market Map For Complete Detail
HEARST MAGAZINES INC
CANADA
VERMONT
MASSACHUSETTS
CONNECTICUT
PENNSYLVANIA
N.J.

FIGURE 11

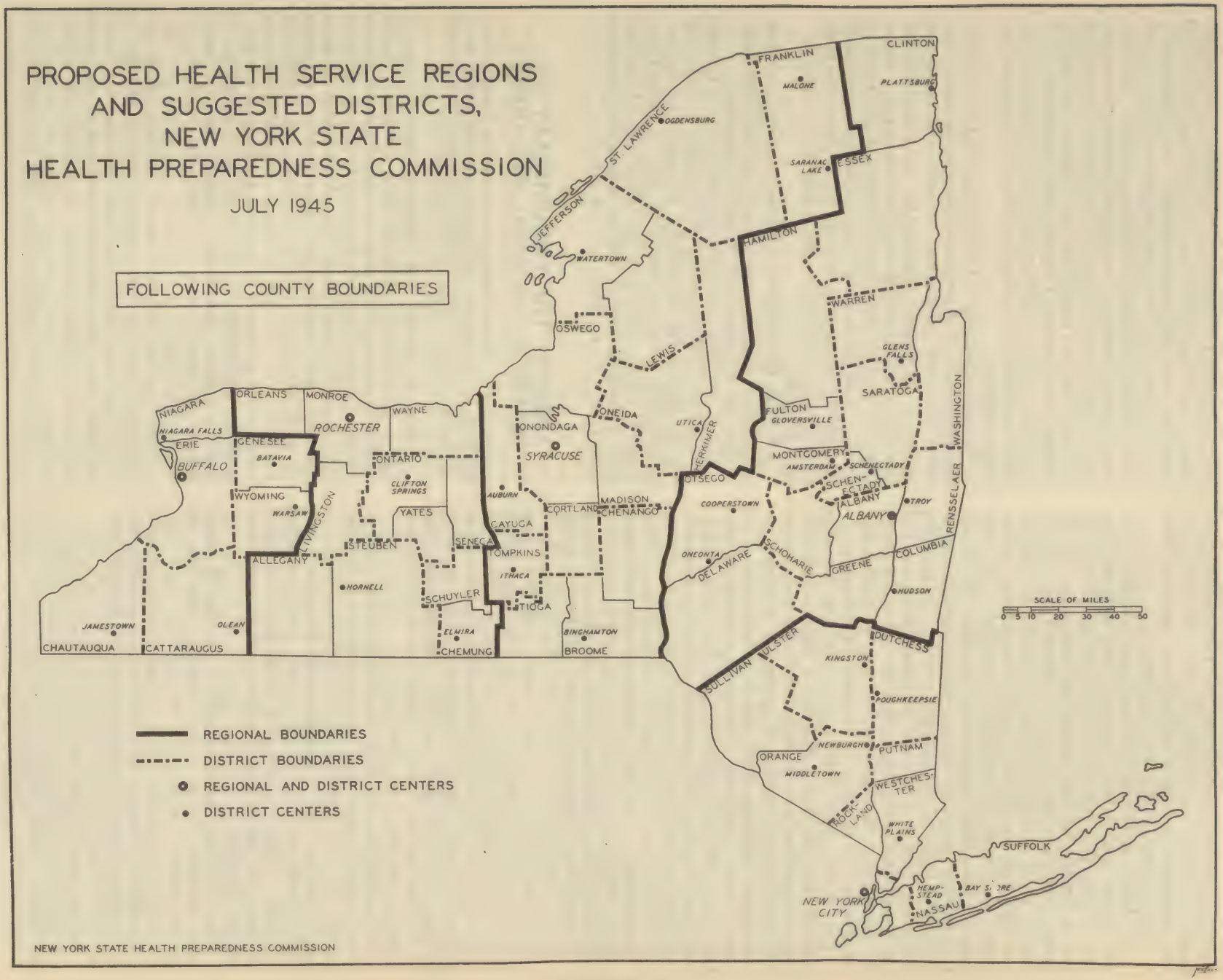
PROPOSED HEALTH SERVICE REGIONS
AND SUGGESTED DISTRICTS,
NEW YORK STATE
HEALTH PREPAREDNESS COMMISSION
JULY 1945
FOLLOWING COUNTY BOUNDARIES
FRANKLIN
CLINTON
MALONE
PLATTSBURG
ST. LAWRENCE
OGDENSBURG
SARANAC LAKE
ESSEX
JEFFERSON
WATERTOWN
HAMILTON
WARREN
OSWEGO
LEWIS
GLENS FALLS
SARATOGA
NIAGARA
ORLEANS
MONROE
WAYNE
ONEIDA
UTICA
FULTON
GLOVERSVILLE
WASHINGTON
NIAGARA FALLS
ERIE
GENESEE
ROCHESTER
ONONDAGA
SYRACUSE
HERKIMER
MONTGOMERY
AMSTERDAM
SCHENECTADY
BUFFALO
BATAVIA
ONTARIO
OTSEGO
SCHEN-ECTADY
WYOMING
CLIFTON SPRINGS
AUBURN
COOPERSTOWN
TROY
ALBANY
WARSAW
LIVINGSTON
YATES
CORTLAND
MADISON
CHENANGO
RENSSELAER
CAYUGA
STEUBEN
SENECA
TOMPKINS
ONEONTA
SCHOHARIE
GREENE
COLUMBIA
ALLEGANY
ITHACA
DELAWARE
HUDSON
HORNELL
SCHUYLER
TIOGA
SCALE OF MILES
0 5 10 20 30 40 50
JAMESTOWN
OLEAN
ELMIRA
BINGHAMTON
DUTCHESS
CHAUTAUQUA
CATTARAUGUS
CHEMUNG
BROOME
ULSTER
KINGSTON
SULLIVAN
POUGHKEEPSIE
NEWBURGH
PUTNAM
ORANGE
MIDDLETOWN
WESTCHES-TER
ROCK-LAND
WHITE PLAINS
SUFFOLK
NEW YORK CITY
HEMP-STEAD
BAY S. ORE
NASSAU
REGIONAL BOUNDARIES
DISTRICT BOUNDARIES
REGIONAL AND DISTRICT CENTERS
DISTRICT CENTERS
NEW YORK STATE HEALTH PREPAREDNESS COMMISSION

FIGURE 12

accepted political subdivisions, and there should be as much uniformity as possible between the location of the administrative units in health services and those of other related public undertakings.

The health service districts may vary greatly in size and in the nature and extent of the self-contained services and facilities which they provide. For example, a health service district including one of the large urban centers may be expected to provide nearly all of the services and facilities that will be required and its affiliation with the regional center might be largely for academic purposes. In other respects the inflow and outflow functions of the district center in one of the larger districts would be quite similar to those of the regional center. In fact, the district centers may, in some instances, serve many of the functions of a regional center for a part of a health service region. Examples of locations where this may be expected to apply are Utica and Binghamton.

Conversely, some of the more rural health service districts may be centered about a small community hospital and local health center where the provision of facilities for the handling of a complex diagnostic or therapeutic problem would not be practicable. Such a rural center, particularly in a poor or sparsely populated area, will not encounter problems of a complicated nature frequently enough to justify expensive facilities that will be little used; nor will it provide sufficient material to attract and support the services of a specialist. Yet the limitations on the facilities of a rural center are not uniform, as in some cases they will reflect the influence of special factors such as endowment funds, the enterprise of a particular physician or group of physicians, and the wealth of the population served. In such cases, however, these centers must draw patients from an area that is larger than they would normally be expected to serve.

It will be noted that in several of the districts more than one district center is suggested. This was done because of the possibility in these districts that some of the functions of a center might be allocated to hospitals in more than one locality.

In general, the centers of the districts would provide administrative and supplemental services for the smaller or less strategically located hospitals and health centers. The regional centers also would provide district center services in their own immediate vicinities. That is to say, they would receive all types of cases and perform general as well as specialized service functions.

New York City is entirely self-contained. It constitutes an entire region and, in addition, provides the regional center services for metropolitan New York. When fully organized, it will undoubtedly embrace a number of districts or district centers within the metropolitan area. It also serves as the regional center for the southeastern portion of the State.

As has been pointed out, the suggested health service districts are entirely tentative because it is difficult to foresee in detail the situations that will arise with respect to them. Determination of the district lines will be greatly influenced by the presence and competence of existing facilities. Some of the districts that comprise one unit geographically and functionally may embrace more than one established hospital and health center of approximately equal status. Or a hospital located outside of the natural district center may be stronger than the one in the district center and will pull patients away from it. These and other considerations of a similar nature make it extremely difficult and unwise to attempt to outline the smaller districts as definitely as has been done in the case of the larger regions.

The determination of the boundaries of the districts and the details of their functions must be based upon study and trial application to particular needs and purposes. It is quite possible that these districts may have to be somewhat different for various programs, at least during the early years of planning and development. In order that they may be unified eventually, it would be desirable in defining these districts to make provision for flexibility and revision as experience may indicate.

Although the foregoing discussion refers to all persons in need of health services, its applicability to the care of the chronically ill is readily apparent.

It will be noted that the boundaries of the Regions as originally recommended are retained in planning for the care of the chronically ill except that for administrative purposes New York City is treated as a separate entity. However, the inhabitants of the New York Suburban Region will be considered as having New York City for their medical center.

CARE OF THE CHRONICALLY ILL BETWEEN HOSPITAL AND HOME

Summary of the full length presentation by the same title published in *Planning for the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission).

Whenever possible and medically expedient, an ill person should be cared for at home. However, many of the chronically ill, who do not require treatment in a hospital, cannot receive proper care at home because they may be living alone, their homes may be overcrowded, their families may be incapable of carrying out medical instructions or they may need specialized nursing care. In such a situation it is advisable to care for the patient in "between hospital and home" facilities—substitute homes such as convalescent or nursing homes, "sanatoria," county or city public homes, voluntary homes for the aged or supervised boarding homes.

"Between hospital and home" facilities might appropriately care for three particular kinds of chronically ill persons, those capable of profiting from convalescent care, those requiring long-term nursing care and those needing custodial or medical domiciliary care.

There is every evidence that, just as there are insufficient general hospital beds to meet today's demand,

there is a dearth of between hospital and home accommodations, especially those providing an acceptable quality of care. It is, therefore, necessary to appraise existing facilities, consider their potentialities and, if necessary, make suggestions for establishing new institutions. However, bearing in mind the immediacy of the need, the necessity for dislocating as few patients as possible from their present places of care, the rising cost of capital construction, the current delays in building construction and the desirability of relieving the taxpayer of all possible burdens, every effort should be made to use existing resources when these provide a good quality of care or, if they are of substandard quality, provide assistance in raising their standards.

Although it will be impossible to secure ample between hospital and home facilities overnight, the means of attaining this goal can be indicated. A blueprint could be developed and then intelligently, cooperatively and consistently translated into action. It must always be realized that a lack of proper between hospital and home facilities for the care of the chronically ill inevitably will create a bottleneck in any comprehensive plan for care of such patients. For example, without such facilities many patients who might otherwise be discharged must be retained in general hospitals, thus depriving another patient of the opportunity of profiting from the hospital care his condition demands. Similarly, a patient who cannot be cared for at home, but who does not need the intensive medical service of a general hospital, may have to be hospitalized for want of more appropriate facilities.

In this connection, it should be emphasized that the chronically ill are from all economic strata and from all age groups. They are not just the indigent and the aged. They include younger persons who, with proper medical and convalescent care, followed by rehabilitation training, can emerge as productive, independent members of society. They include the aged recipients of Old Age and Survivors Insurance benefits who are able to pay for at least a part of their care. The development of proper facilities would materially assist in the physical and economic rehabilitation of many, and provide proper places of care for those aged who, through a lifetime of payroll deductions, expect that their Social Security benefits will purchase the medical care and living necessities required in old age.

The bulk of between hospital and home care today is provided in nursing homes, supervised boarding homes, public homes and voluntary homes for the aged. Since information is available on these facilities, the following discussion has been confined to them. However, the Sub-committee on Adult Institutional Care of the Special Committee on Social Welfare and Relief of the New York Joint Legislative Commission on Interstate Cooperation is also concerned with these same facilities and plans to assemble and public information thereon, hence this presentation is intended only as a discussion of these facilities in relation to the care of the chronically ill.

Nursing Homes

In 1943 the New York State Department of Social Welfare made a study of nursing homes in which recipients of public assistance were receiving care.[1] It was prompted by the local welfare departments, wishing the State to reimburse for such care without requiring "prior approval" by the Department. The findings indicated that the homes generally accepted the convalescent, the chronically ill, the aged and infirm but, with some exceptions, excluded the alcoholic, cancer, infectious disease and mental cases and patients requiring post-operative care. Most of the homes had urban locations, were not well equipped and many were not staffed to provide the needed medical and nursing care. The majority had a preponderance of aged among their populations. As a result of the study, the State Department established a system of reimbursement for nursing home care devoid of "ceilings" and with reimbursement contingent upon the local departments, "certifying" the nursing homes to be used. This was done on the basis of locally established, not Statewide, standards which applied only to those homes accepting publicly dependent patients for care, not to those confining admission to persons paying for their own care.

The fact that from July 1945 to May 1946, a period of only ten months, the number of homes certified by the local departments of public welfare rose from 400 homes with 5,110 beds to 447 homes with 6,139 beds is illustrative of the increase in nursing homes.

Since nursing homes are assuming greater importance as auxiliary medical care facilities and, therefore, should provide care of acceptable quality, there has been considerable demand that, in the public interest, they be made subject to some form of State supervision, both to aid in the improvement of facilities and care and to insure that minimum standards are maintained. Two methods suggest themselves, (1) comprehensive licensure of all facilities caring for ill persons, including nursing homes, and (2) regulation of nursing homes only.

In 1946 five cities and one county of New York State licensed nursing homes, and four additional communities exercised a legal control short of licensure. Even though this licensure has caused improvement in the homes it has limitations when confined to a single locality, for homes can readily move just outside the area of jurisdiction to avoid regulation. Besides, these localities have stressed the structural and sanitation aspects of control and have paid comparatively little attention to the quality of the medical and nursing care given.[2]

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[1] For full text of study see: New York State Health Preparedness Commission, "A Study of Nursing Homes in New York State, 1943", *Planning for the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission.)

[2] For more detailed data see: New York State Health Preparedness Commission, "Regulation of Nursing Homes in New York State", *Planning for the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission.)

At least twenty states now license nursing homes—eight by including them in their comprehensive licensure of medical institutions and twelve by licensing nursing homes only. The state departments of health are the licensing agency in twelve instances, including the eight states with comprehensive licensure; and the departments of public welfare in seven, including five states where licensure appears to be directed primarily toward the protection of the aged in institutions. In New Jersey the Department of Institutions and Agencies is the licensing agency.

Comprehensive licensure would seem to be a method desirable for New York State to adopt as a step toward maintaining minimum standards in medical institutions. However, if this method cannot be initiated at an early date, an alternate choice would be the registration of nursing homes. Under the registration method, each nursing home would be registered, inspection for compliance with published requirements would be optional with the State administrative authorities and non-conformance to regulations would be punishable.

The following principles are suggested in considering, establishing and administering statewide official regulation of nursing homes:

1. Regulation should apply to all nursing homes, regardless of whether under proprietary, voluntary or public auspices.
2. When their facilities and staffs permit, local official agencies (county or city) should have the option of administering the regulatory process within their respective jurisdiction, under State formulated minimum standards.
3. Inspections relative to the sanitation, fire safety and structural standards should be made by the State or local official departments technically qualified and legally responsible for these aspects of the public safety. Preferably, such departments should assign proper personnel for this purpose to the enforcement agency.
4. Inspections of nursing homes should be made by a "team" of specialists, each member thereof to be qualified by training and experience to pass judgment on those aspects of regulation coming within his respective field of competency. The "team" should visit a nursing home as a group, its members should consult each other to insure consistency of conclusions and should submit a composite report.
5. Specific minimum standards should be formulated, published and distributed and should be applicable to each nursing home in the State. Such standards should include those relative to admissions and quality and continuity of medical and nursing care, as well as those relative to physical structure, fire safety, sanitation, accommodations, equipment and facilities.
6. Any method of regulation established should be legally capable of deterring the opening of any new nursing home which, on the basis of data and structural plans submitted by the potential operator (individual, association, church group, fraternal order or governmental unit), is adjudged incapable of meeting the established minimum standards of operation.
7. The State administrative agency should be just as responsible for teaching and assisting the nursing homes as for censuring them, i.e. in addition to formulating and enforcing standards it should offer constructive consultative and advisory service.
8. The administrative responsibility should include the obligation to maintain records to insure a continuing basis of study of the nursing home situation and the regulatory process so that both might constantly be improved, on the basis of fact.
9. The nature of any regulatory process established should take cognizance of the manpower situation as it relates to the admistrative staff, i.e. it should ensure complete coverage of nursing homes regarding details considered of fundamental importance and, instead of "spreading thin" on other aspects of regulation, should concentrate its efforts on those aspects most beneficial to the public interest.
10. Enforcement of regulations must be so executed as to preclude the closing of nursing homes when alternate facilities do not exist for placement of the patients who would thus be displaced.

In order to secure the maximum attainable benefit in setting and raising standards, allowing opportunity for teaching administrators of nursing homes and permitting public authorities to obtain current information, a system of registration, combined with the power to formulate and enforce regulation, would seem a suitable method for improving the quality of nursing homes in New York State, particularly under currently prevailing circumstances. This would allow for the application of the preceding principles, would avoid the rigidity inherent in the traditional licensure system and would meet the objecton that licensure would merely close down facilities which, though far from ideal, are better than nothing at all.

If licensure were the method of regulation chosen, the licensing agency would be legally obligated to inspect *each* nursing home probably annually or, less preferably, biennially. If qualified personnel were not readily available, the administering agency might have to "spread thin" its inspection service to reach each home, thus attenuating the quality of inspection of all homes. Registration would obviate such a legal responsibility.

The following are envisioned as the major characteristics of registration:

1. A certificate of registration would be required to be posted in every nursing home in the State as a condition of operation.

2. Certificates of registration would carry no expiration date and would be valid for an indefinite period, subject to revocation for cause.
3. On or before the effective date of registration each nursing home in the State would be required to file with legally designated officials a completed official application for a certificate of registration, the administrative agency automatically approving all such applications.
4. Upon filing the completed application form, each such registrant (nursing home) would receive a copy of the minimum standards for operation of nursing homes, fulfillment of which would be requisite to continued operation.
5. Subsequently, the administrative State agency would inspect those nursing homes in which inspection seemed most needed and, if necessary, could effect improvement through (a) offering advice and consultation; (b) placing the registrant on probation; (c) fine the offender, subject to appeal; or (d) revoke the certificate of registration, subject to appeal.
   (It should be noted that the administrative agency would not be obligated to inspect each nursing home at specified intervals, but could, if limitations of personnel require, deploy its manpower first to inspect and advise those homes which, in the public interest, seemed to demand immediate attention. Others could be inspected as specific exigencies required and/or the availability of qualified staff allowed.)
6. Each individual or group contemplating the establishment of a nursing home would be required, as a condition of opening, to file a completed, official application for a certificate of registration, accompanied by specified data, including structural plans. Approval of such applications by the enforcement agency would be based on a determination of the applicant's ability to meet the established minimum standards.
7. Plans for new construction or remodeling, the increasing of the bed capacity and the amendment of admission policies of any nursing home should be subject to approval of the administrative agency.

The use of the registration method as a means of improving nursing homes could effectively fulfill the principles previously suggested. Although its staff probably would be unable to visit all nursing homes at the outset, the administrative agency gradually and systematically could achieve complete coverage, at the same time providing consultative and advisory service. It should dedicate itself to quality, not merely quantity, performance.

Supervised Boarding Homes

Closely related to the nursing home is the supervised boarding home, a home approved by a local department of public welfare to provide shelter, board and personal services to sick, handicapped or infirm persons who, although not requiring hospitalization or nursing home care, are unable to resume normal living. The proprietors of such homes are willing occasionally to assist the boarder in dressing, combing his hair, tying shoes or serving a tray in bed, when necessary. Professional nursing service is not needed and, when medical care is required, the boarder visits the clinic or the physician's office.

Although supervised boarding homes apparently have sprung up to meet wartime demands, there is every evidence that they will continue to operate and probably increase in number. They are an asset in providing a protected, homelike environment for the ambulatory chronically ill and aged who have no adequate homes of their own. Therefore, the State Department of Social Welfare, in cooperation with the local departments of public welfare, might assume leadership in formulating and enforcing minimum standards for such of these homes as accept public charges, establish rosters of the approved homes and, ultimately make such registers available for use by non-dependent, potential boarders, upon request.

Public Homes

Just as one thinks of nursing homes as places for the care of ill persons, many think of the county and city public homes as institutions providing shelter and board for lone individuals, transients and those well aged who have no one to care for them. This conception is correct, but only in part. The nature of the public home has long been undergoing change, with an appreciable proportion of its population now requiring medical, nursing and attendant rather than purely custodial care. Concurrently, more of the general population, including many able to pay for care, require this same kind of service but are unable to secure it because of lack of facilities.

In 1943, the 60 public homes of upstate New York cared for 14,318 persons, one-third of whom were under 65 years of age. Although no comprehensive survey has been made to determine the physical and mental condition of the public home population in the State, there is every reason to believe that, if definitive findings in similar situations are applicable, there is a high proportion of ill persons in this group. Recent studies made in Illinois, Maryland and in Nassau County, New York, showed that about four-fifths of their respective public home populations were ill, mostly chronically ill. Similarly, four-fifths of the persons admitted to such homes in New York State in 1938 were accepted for care either because of disability due to chronic illness or age, or because of need for temporary medical care.

This raises the question as to the immediate future role of the public homes in the State. Written inquiries to local commissioners of public welfare in New York State and discussions with persons conversant with the subject have brought forth the following suggestions: (1) Each public home which plans to admit or continue to house chronically ill persons should, in whole or in part, be converted into a cheerful, homelike nursing home of high quality under public auspices. (2) Such converted homes should

become community facilities and should admit those able to pay for care, as well as the indigent. (3) The care of chronically ill public charges admitted to homes meeting minimum standards of care should be reimbursable by the State under the same fiscal formulae applicable to reimbursement for care outside such institutions. (4) Every effort should be made to assist the public homes to throw off their social stigma and ensure their acceptance as auxiliary medical institutions, just as the State tuberculosis and mental hospitals are regarded. (5) The alcoholic, senile psychotic and cerebral arteriosclerotic cases now in many of the public homes should be transferred to places of care more appropriate to their needs, either in special institutions or specifically designated sections of the larger public homes.

There is a demand for the type and quality of care which some of the public homes are now providing the chronically ill and which additional homes, if improved, could provide. Moreover, philanthropic funds for such capital undertakings are decreasing, tending to leave the major responsibility to public enterprise. Much of the above five-point program could be initiated without great basic change in State policy by strengthening and using three already existing regulatory methods: (1) Criteria for new construction and material remodeling of public homes should be established and published by the State. At present the responsibility for approving such building is vested in two departments: the State Department of Social Welfare has the power to approve or disapprove any public home construction or material renovation while the Postwar Public Works Planning Commission[1] must pass upon the application for State funds for planning to build or remodel such facilities. (2) If State reimbursement were made available for the care of the indigent in public homes, this might be made contingent upon such institutions meeting minimum standards of maintenance and operation. Although such reimbursement does not exist now, the State Department of Social Welfare has the power to inspect and make recommendations relative to the operation of public homes.

It is timely now to consider the trend that our capital construction, conversions and expansions should take. As of October 1946, at least 14 counties of upstate New York were planning extensive alterations or replacements of their public homes. Most of these projects already have been approved by the State Department of Social Welfare and the State Postwar Public Works Planning Commission. The combined estimated costs for the projects in ten of these counties is $2,677,730. It is hoped that these improvements, which are both necessary and desirable, will be planned with a view to providing the kind of care actually needed by the persons now constituting our public home population, especially since the average citizen is both the taxpayer and the potential user of these and similar facilities.

Regulation relative to such homes desiring conversion might be made applicable (1) at the time of construction or remodeling and (2) during the period of operation. Future construction should be conceived to meet current and potential needs on a realistic rather than a traditional basis. State agencies exercising controls over new construction or remodeling could formulate criteria prerequisite to approval, including proof of the ability of the sponsoring agency to operate the contemplated facility properly. Such standards of construction might include requirements of a medical care nature, of which the following are illustrative:

1. Approval should be based upon the results of a survey, for each community contemplating construction, of the local medical and medically related facilities, their capacities and relationship to each other.
2. Consideration should be given to the use of existing, little used, yet appropriate, capital structures in lieu of new construction. (For example: The conversion of a wing of a general hospital having low occupancy. The conversion of one or all of several well-constructed units of a multi-unit local tuberculosis hospital having a decreasing patient population.)
3. Consideration should be given to the question as to whether or not the county (or city) which will operate the institution is sufficiently populous to justify the capital expenditure. If not sufficiently populous, service might be bought from an adjacent county or city.
4. A careful analysis should be made as to whether or not the future program of the institution should incorporate a farm operation. (Today fewer and fewer inmates are physically capable of performing agricultural labor chores.)
5. Whenever possible the institution should be located close to the greatest concentration of population of the county, preferably near an approved general hospital. (Location is a factor in the availability of personnel, accessibility to the services of a general hospital and the willingness of patients to patronize the facility.)
6. The structure, or a part thereof, should be conceived as an allied medical institution and should be planned functionally to serve this purpose efficiently and economically.
7. Whenever possible, it should be located near and operated as part of the county or city general hospital or, in the absence of such a public general hospital, be located near and affiliated with a voluntary general hospital.
8. The institution should be so planned and placed as to permit future structural expansion by the

[1] The Postwar Public Works Planning Commission was terminated on March 31, 1947. Its functions and those of the Joint Hospital Board created by executive order August 2, 1945, relative to planning for hospital facilities, have been transferred to the Joint Hospital Survey and Planning Commission, created by Chapter 578 of the Laws of 1947.

addition of wings or additional floors in conformity with the basic architectural pattern.

9. Any plan submitted for approval should provide space for recreational, occupational therapy and rehabilitative activities of the inmates, i.e., assembly room (auditorium), chapel, workshop, etc.
10. The immediate contemplated capacity of the structure should take into consideration (a) the population of its predecessor, (b) the waiting list, (c) the desirability of admitting individuals now inappropriately under care in proprietary nursing homes, general hospitals or their own homes and (d) the estimated increase in numbers in the near future of age groups and types of medical cases eligible for care.
11. The sponsoring authorities should present a statement of the anticipated needed numbers and qualifications of various types of personnel required to operate the institution; and the approving authorities should determine whether the professional and non-professional personnel complement and their qualifications are such as to provide the high quality of service required.
12. The sponsoring authorities should present a detailed budget on anticipated annual gross and net operating costs and per diem costs per inmate, preferably by type of service to be provided, i.e. nursing care, medical domiciliary care, shelter care, etc.

Standards of operation might well embrace those relative to safety, fire protection, sanitation, facilities, equipment, accommodations, furnishings, administration, personnel, admission and discharge, nursing service, medical service, records and reports. Since the diversity of competence required to evaluate the institutions on the basis of these criteria exceeds that of any one individual, with rare exceptions, it is advisable that the determinations be made by an experienced and qualified "team" of individuals who, as a group, possess these abilities.

The following exemplify a few of the standards, of a medical nature, which might profitably be required to insure proper operation:

1. The institution, or at least a part thereof, should be regarded as an allied medical institution, occupying the same place in the community for the type of service it provides as an approved general hospital enjoys for its appropriate type of service.
2. It should be eligible for registration as at least a "related institution" by the American Medical Association, i.e., conforming to the requirements for such registration.
3. The individuality of patients should be preserved by offering (a) either single rooms or ward units not exceeding a capacity of four, (b) a variation among the rooms as to color of paint on the walls, and (c) dining tables of small capacities, not exceeding six.
4. The following types of patients should be eligible for care, regardless of economic status:
   (a) *Convalescent patients* for whom an organized, planned, institutional regime is medically indicated and those requiring less planned care, but whose homes are unable to provide the type care needed.
   (b) *Bedridden cases* requiring medical domiciliary care, but not hospitalization, and for whom this type of care cannot be provided in the patient's own home.
   (c) *Ambulant and semi-ambulant cases* not requiring hospitalization who cannot be suitably placed in supervised boarding homes and whose own homes are undesirable.
5. The institution should admit such full-pay and part-pay patients, in addition to the medically indigent, as may request admission.
6. The medical staff of the institution should be chosen in the same manner which is customary among the approved local general hospitals, i.e., open service, closed service, rotating service, etc.
7. The medical staff of the institution should be organized into a medical committee under a salaried medical administrator serving either on a full-time or part-time basis.
8. No institution should provide the active type of medical service which is commonly regarded as the province of the general hospital, but each should formulate a working agreement with one or more of the local registered general hospitals, and preferably with one also approved by the American College of Surgeons.
9. The decision to transfer a patient from the institution to a general hospital, or vice versa, should be made only on recommendation of a physician.
10. The ratio of registered and practical nurses and attendants to the patient population should conform to a specified minimum.
11. Each institution should have an organized program of rehabilitation and occupational therapy so graded that the patient can progress from one type of activity to another.
12. Each institution should review, at stated intervals, and on a medical-social casework basis, the potentiality for discharge of each patient or his transfer to an institution providing a type of care more appropriate to his condition.

VOLUNTARY HOMES FOR THE AGED

Unlike the public homes, the voluntary homes for the aged have been able to be more selective in their admissions. They tend to restrict application to members of their respective sponsoring groups (fraternal, church or nationality organization) and, as a policy, often admit only persons in "good health." Payment is frequently a lump sum entrance fee which is intended to defray the cost of care for life. Although many of the homes may not knowingly

accept ill persons, they do care for those of their guests who become ill following admission.

The 200 voluntary homes for the aged in New York State can care for almost the same number of persons as can the public homes in the State. They are important and vital assets to their respective communities. Without them the State would be deprived of a large number of beds for the care of the aged, many of whom are chronically ill, even though not bedridden.

As the proportion of the aged in the general population is mounting, the life span increasing and the needs of the aged changing, it might be advisable for more of these voluntary homes for the aged to reconsider their policies of admission and operation. For instance, they might be encouraged to adapt a greater portion of their facilities and programs to providing a high quality of "between hospital and home" care to the chronically ill. They might modify their admission policies to discontinue admissions on a life basis and accept persons paying monthly fees. Such a change would make possible the admission of recipients of public assistance and of Old Age and Survivors Insurance benefits which would be effective in lessening the demand for contributions from sponsoring groups to offset operating deficits. It is the considered opinion of many informed persons that such changes would not only enhance the value of the homes for the aged to their respective communities, but would also make it possible for chronically ill persons of similar religious, fraternal or nationality backgrounds to be more readily and happily admitted and adequately cared for in institutions of their choice.

Conclusions Many nursing homes, supervised boarding homes, public homes and voluntary homes for the aged are adaptable, potential resources for providing care between hospital and home to those chronically ill who, although not requiring hospitalization, cannot receive suitable long-term or convalescent care in their own homes. The demand for this service is great and urgent. A place exists for the use of all these facilities, and others too. However, their future value may well depend on their ability and willingness to adapt to community needs and to provide care of high quality.

CARE OF THE CHRONICALLY ILL: THE LOCAL PUBLIC WELFARE VIEWPOINT

Summary of the full length presentation by the same title published in *Planning For the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission).

Although the formulation of a plan for the care of the chronically ill by the New York State Health Preparedness Commission will apply to patients in all economic strata, information relative to patients in the State who are chronically ill and also medically indigent is significant in such planning. It is generally accepted that a large number of all chronically ill persons are either medically indigent when the chronicity is first noted or become so during the ensuing period of illness. Therefore, any facts concerning these patients apply to a large segment of the chronically ill population. Data relative to them are available from the county and city departments of public welfare who pay for the medical and hospital care of medically indigent citizens.

In April, 1945, a letter was sent to the 106 local commissioners of public welfare (57 county and 49 city commissioners) requesting their opinions on the adequacy of existing facilites and services for the care of the medically indigent chronically ill and inviting their suggestions for improving services to these patients. Replies were received from 43 counties and 39 cities in upstate New York and from New York City, over three-quarters of the addressees.

The major findings, as indicated by the replies received, are as follows:

1. The cases giving the most difficulty to the local departments of public welfare are: (a) Mental cases which are too disturbed to be properly cared for in nursing homes and most public infirmaries, yet are psychiatrically ineligible for admission to state mental hospitals under present admission requirements; (b) Senile patients, many of whom are deteriorating; and (c) Cases requiring long-term nursing care, but not hospitalization.

2. The outstanding problems in the care of the chronically ill are the lack of local custodial institutions, proper nursing homes, hospital facilities for intensive medical care and, to a lesser extent, diagnostic facilities.

3. In order to receive the best quality of medical care needed, four out of five local departments of public welfare find it desirable to refer some medically indigent patients, including many with chronic illness, to medical facilities outside of their immediate localities. The centers within the State which are most frequently used are Albany, Buffalo, New York City, Rochester and Syracuse, all recognized medical centers; counties along the southern tier refer cases to Sayre, Pennsylvania, and those in the northeastern section to Montreal. In addition, a number of counties, regardless of proximity, send terminal cancer cases to Rosary Hill at Hawthorne, Westchester County.
   In isolated instances, difficult cases requiring the services of particular highly regarded specialists, have been sent to the University of Pennsylvania Hospital in Philadelphia, Crile Clinic in Cleveland, Mayo Clinic in Rochester, Minnesota, Lahey Clinic and Massachusetts General Hospital in Boston and Johns Hopkins Hospital in Baltimore.

4. The suggestions most frequently made for improving the present service to the chronically ill were the erection of new or the improvement of existing public infirmaries, the expansion of hospital facilities and the encouragement of more adequate nursing homes. Some welfare departments noted

that the public home infirmary of the future should be divested of the vestigial stigma now often associated with it, should admit paying patients and should provide service superior to that of the average proprietary nursing home of today. Others favored the further development and improvement of nursing homes as offering a more homelike and congenial setting for a long-term care.

5. Three out of five commissioners called attention to the desirability of state reimbursement for public infirmary care and almost 50 per cent stressed the need for state assistance for hospitalization. Other suggestions made were: financial aid from the State for capital expansion of local hospitals; establishment of state regional hospitals; diagnostic and consultation services; and establishment of institutions for borderline mental patients.

CARE OF THE CHRONICALLY ILL: THE HOSPITAL VIEWPOINT

Summary of the full length presentation by the same title published in *Planning For the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission).

Although most chronically ill persons, especially the ambulant and semi-ambulant, can generally be properly cared for in their own homes, a substantial number require institutional care—in hospitals, in nursing homes, in convalescent homes, in medical domiciliary institutions. In March 1945 the Health Preparedness Commission, aware that the general hospitals are in daily contact with the problem, sent a letter of inquiry to those hospitals located in New York State, outside of New York City proper, which had been registered by the American Medical Association for 1944. They were requested to indicate (1) the extent to which their respective beds were being used by the chronically ill, (2) the arrangements which they had for transferring such patients to other places of care, (3) the needs which they considered to be unmet and (4) their conception of the role of the general hospital in caring for this type of patient.

Replies were received from three-fourths (139) of the 180 hospitals canvassed, representing almost 90 per cent of the general hospital beds in upstate New York. The major findings, assembled from the replies, are as follows:

1. Although only a few hospitals assign specific beds, floors or wings for the care of the chronically ill, four-fifths of the hospitals admit such patients. In fact, 37 reported that from ten to over thirty per cent of their beds were thus utilized. Others stated that they admit the chronically ill whenever beds are available. Still others admit them only in emergencies.
2. Approximately three-fourths (92) of the hospitals reporting on the availability of facilities for transferring chronic patients no longer needing hospitalization stated that they were unable to make satisfactory arrangements for referring patients to nursing home, convalescent or medical domiciliary care. This has created an unnecessarily prolonged occupancy of some hospital beds, has hampered prompt admission of other patients sorely needing hospital care and has tended to encourage policies of rejecting chronic patients.
3. In recent years the hospitals have become increasingly aware of the lack of facilities and services for the institutional care of chronic illness. Nine out of ten of the administrators replying to the question on unmet needs made suggestions for new, expanded or improved hospitals, nursing homes or convalescent homes, the latter to be affiliated with general hospitals; better staffed and equipped existing facilities; more liberal payments by welfare officials for the care of the indigent ill; graduated fees commensurate with the financial ability of the non-indigent; and the promotion of various specialized medical, medical-social and rehabilitative services.
4. Only one-fourth of the administrators expressing opinions on the future role of the general hospital in this field of medical care were adverse to its assuming a fair measure of responsibility for the care of the chronically ill. Three-fourths favored such a role, many with limitations, i.e., placement in separate wards, wings or buildings. Many would admit patients for diagnosis and screening only and others for specialized treatment only. Several replies, citing the increase of the aged in the general population and efficaciousness of new treatment methods in shortening the hospitalization periods of some acutely ill cases, expressed the hope that general hospitals would revaluate their policies in the light of the needs of the chronically ill.

OFFICIAL PLANNING IN OTHER STATES FOR THE CARE OF THE CHRONICALLY ILL, 1946

Summary of the full length text by the same title published in *Planning for the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission).

Individuals and voluntary church and welfare organizations have long been conscious of the need for adequate care of the chronically ill and have promoted programs to meet this demand. However, their efforts usually have been isolated, modest in volume and generally confined to some particular urban community. Now, with the rapidly increasing proportion of the aged in the general population and the rising prevalence of chronic illness, interest in these patients has become more widespread and the demand for ameliorative action more concerted. This demand has been expressed in national forums—in the hearings of the United States Senate Committee on Education and

Labor, in meetings of the American Public Health Association, in deliberations of the American Public Welfare Association and in publications of national scientific and social organizations. Simlar currents are flowing in some states, in their legislatures and their commissions—closer to where public officials must respond to demands, closer to where the chronically ill live and must be cared for, and where detailed planning for their care must be consummated.

Planning on the state level is definitive and formalized in Connecticut, Illinois, Indiana, Maryland and Massachusetts and, although New Jersey does not yet have an official comprehensive plan, it has developed some services for the chronically ill which are widely recognized and commended. Moreover, additional states are beginning to give serious consideration to this problem. Such planning is not only a humanitarian effort to make adequate medical care available to persons with long-term illnesses but also an attempt to conserve the economic productivity and social usefulness of a large segment of the population.

CONNECTICUT In accordance with an act of the 1943 General Assembly, the Public Welfare Council of Connecticut collected data on the prevalence and needs of the dependent aged, infirm and chronically ill in the State and, in its report to the 1945 General Assembly, made recommendations for providing more adequate care for these individuals. Specifically, it was recommended that the State establish a board or commission to develop, administer and coordinate a comprehensive program for the care of the dependent chronically ill, including good quality hospital, infirmary and boarding home facilities and diagnostic, treatment, home nursing and housekeeper services; and to make provision for research into the causes, methods of prevention and treatment of chronic disease. The report also presented detailed suggestions as to the number and type of institutional beds needed, the manner in which out-patients might best be cared for and the estimated capital and annual operating costs of the recommended program.

The General Assembly (1945) passed and the Governor approved legislation establishing the State Commission on the Care and Treatment of the Chronically Ill, Aged and Infirm, in accordance with the recommendation of the Public Welfare Council. The $1,000,000 appropriation specified in the original bill was reduced to $25,000 "for the purpose of activating the most urgently needed components of the Commission's program."

The 1945 General Assembly also recognized alcoholism as a public health problem and created the State Commission on Alcoholism whose basic purpose is to use clinics and other facilities to provide diagnostic and treatment services for alcoholics, and to study and disseminate information on the problem of alcoholism. Nine per cent of the annual fees for permits issued by the State Liquor Control Commission (an estimated $200,000 to $225,000 annually) will be used to support the Commission on Alcoholism.

ILLINOIS The Legislative Committee to Investigate Chronic Diseases Among Indigents, created by the 1943 General Assembly of Illinois, reported to the 1945 General Assembly (1) that the prevalence of chronic disease and the proportion of all deaths due thereto are increasing; (2) that, since such illness occurs in all economic strata, any planning for its amelioration should not be confined to the indigent; (3) that the prevention of chronic disease is as important in conserving economic productivity and averting social and economic complications as in preserving good public health; (4) that the number of existing facilities are insufficient to provide adequate care for the chronically ill of the State; and (5) that further study of the problem and means of its solution are needed. The Illinois State Commission on Care of Chronically Ill Persons, created in accordance with this latter recommendation (1945), has not yet filed its report.

In the interim, a law has been passed and put into operation (1945) making mandatory the licensure of proprietary and voluntary nursing homes by the State Department of Health. Shortly thereafter (1946) Illinois established its county homes as medical facilities for the infirm and chronically ill of all economic strata and extended State reimbursement to cover indigent patients in all such homes meeting State minimum standards.

Concurrently, the Committee on the Problem of Alcoholism, organized in 1944, is promoting a treatment program for a selected group of alcoholics in wings of two of the State mental hospitals. However, no extensive capital building program is contemplated for the care of such patients until the results of the present treatment method have been fully evaluated.

INDIANA Indiana is reputedly the first State to have officially incorporated into its public health program a continuing service for the prevention, treatment and amelioration of the diseases and disabilities of the aged. This service, enacted into law by the 1945 State Legislature and vested in the Division of Adult Hygiene and Geriatrics of the State Board of Health, has the following principles and objectives: (1) to study the diseases and disabilities associated with the aged; (2) to plan for the health and well-being of the aged; (3) to interpret to the public the nature of aging and chronic disease and the fact that premature senescence is preventable; (4) to elicit the interest of physicians in the prevention and proper treatment of diseases associated with aging; (5) to foster an appreciation of the usefulness of the aged in the community because of their experience; and (6) to be interested in and seek improvement in all laws, rules and regulations affecting the aged.

The division currently is preparing and distributing informational pamphlets to lay and professional persons, promoting the interest of physicians in geriatrics, urging adults to have preventive health consultations and conducting a survey of industries to ascertain their retirement practices.

MARYLAND Although official studies were made of the public home situation in Maryland in 1931, 1933 and 1938, no steps were taken to eliminate the inadequacies reported. A similar study in 1939, concluding with like findings and noting the large number of ill inmates in the homes, resulted in the appointment and subsequent report of the State Almshouse Commission (1940). This body recommended (1) that the State build and operate two regional chronic disease hospitals (later increased to three), each of which would have hospital and infirmary sections and be located near an approved general hospital; (2) that the respective counties should pay a stated sum toward the per diem cost for their indigent residents admitted for care, with the State meeting the deficit; (3) that each hospital should admit adult patients needing long-term nursing, medical or infirmary care who either cannot be otherwise cared for or cannot pay for such care elsewhere; and (4) that such facilities should be planned to allow for future capital expansion, especially for the addition of wings for the care of chronically ill children.

This proposal, rejected by the State Legislature in 1941, was approved in 1943 and appropriations for building were made subsequently. Construction of at least one of the three hospitals, deferred by manpower and labor shortages, is now imminent.

MASSACHUSETTS In planning for the care of its chronically ill residents, Massachusetts has tended officially to concentrate on specific chronic diseases successively, such as cancer and arthritis, rather than on the development of a comprehensive all-inclusive plan. Therefore, its approach to the problem in the past probably is better described as a general policy than as a formal plan or blueprint. With the aging of its population, and because the susceptibility to chronic disease increases with age, Massachusetts anticipates that the number of such patients will be more than one in eight of the general population, the ratio reported in 1933 in a State survey. In 1945 the General Court (State Legislature) appropriated $200,000 for formulating plans for an 800-bed chronic disease hospital to be operated by the State Department of Health. By 1946, the Department was also considering plans for the establishment of 18 clinics, to be distributed geographically throughout the State, probably in general hospitals, to provide the chronically ill with service by specialists in the various chronic diseases and in cooperation with the patients' personal physicians.

In addition to several recommendations relative to the dispensing of alcoholic beverages and court procedures in cases of alcoholism, the Special Committee to Investigate the Problem of Drunkenness in Massachusetts recommended to the 1945 General Court that a hospital be established for the treatment of early and moderate alcoholics, and that a commission be created for the continuous study and investigation of this problem.

NEW JERSEY Although New Jersey has only recently (1946) appointed a commission on planning for care of the chronically ill, its Department of Institutions and Agencies has been a spearhead in calling public attention to this medical-social problem and in providing leadership and assistance in developing and improving facilities for care of long-term patients.

As early as 1924 the State passed permissive legislation allowing counties to establish local, public operated welfare houses, institutions to supplant the traditional almshouses and "poor farms" and to provide care for the non-tuberculous, non-psychotic indigent ill requiring long-term medical and nursing care but not hospitalization. Each welfare house has an infirmary for the bedridden and a custodial unit for ambulant patients. Subsequently (1927), the State initiated the licensing of nursing homes, has provided advice and consultative service to these institutions and has made periodic inspections of them. In 1943, the State liberalized its reimbursement formula for Old Age Assistance cases in nursing homes. In 1931, pursuant to a resolution of the State Legislature, the Department of Institutions and Agencies collected and published data on the prevalence of chronic illness in the State and the inadequacy of existing facilities for the chronically ill, and made suggestions for improving medical services for these patients.

The State Commission for the Rehabilitation of Alcoholics and the Promotion of Temperance, created by the 1945 State Legislature, is responsible for preparing and administering a program for the care, treatment and rehabilitation of alcoholics and for promoting an education program relative to the use of alcohol. Through personal interviews with physicians, a study has been made of the medical aspects of alcoholism and, in the future, the Commission plans to assemble information on its economic, sociologic, moral and legal aspects. This study (1946) suggested that the State establish and support "information and referral centers as an appropriate first move in the development of a sustained program for dealing with the problems created by alcoholism."

LICENSURE OF NURSING HOMES IN OTHER STATES, 1946

Summary of the full length presentation under the same title published in *Planning For the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects* (1945–1946 Report of the Commission).

Nursing homes are licensed in at least twenty states in the United States. (See Table 49, page 86.) In some, licensure is comprehensive, applying to institutions of all types caring for ill persons—nursing homes and general, special, tuberculosis, maternity and contagious disease hospitals. In others it applies only to nursing homes. In this connection it should be noted that some states officially license only homes caring for the aged, including the aged ill and infirm. However, in practice, according to the responsible officials of the

respective states, this is tantamount to licensing all nursing homes, for all such homes either care for aged persons or wish to be permitted to do so.

In some states the impetus for licensure has stemmed from the desire to assure their citizens that the quality of medical care provided in each institution admitting ill persons meets prescribed standards, regardless of the type of medical or medically related institution. In others, licensure has resulted from the concern of public and voluntary welfare agencies regarding conditions existing in institutions caring for their aged, sick and infirm clients. Eight states have comprehensive licensure laws while the remaining twelve license nursing homes specifically or, as previously noted,

TABLE 49.— *Summary of Specified Details of Licensure of Nursing Homes in Twenty States, 1946*

STATE	Year of Effective Date of Licensure of Nursing Homes	Coverage of Present Licensure System	State Department Responsible for Licensure	Licensure Period	Fee per Period
California	1946	Comprehensive*	Health	Calendar year	Graduated
Colorado	1909	Comprehensive	Health	Year from issuance	$1 for original
Connecticut	1927	Comprehensive	Health	Calendar year	None except for private mental hospitals
Delaware	1945	Homes for the aged, infirm, chronically ill, convalescent	Health	Until violation occurs	None
Illinois	1945	Nursing homes	Health	Year from issuance	$25 first year; $5 per renewal
Indiana	1943	Nursing homes for the aged	Welfare	Year from issuance	Graduated
Maine	1946	Comprehensive	Health	Year from issuance	$15
Maryland	1945	Comprehensive	Health	Year from issuance	$10
Massachusetts	1929	Homes caring for the aged	Welfare	2 years from issuance	None
Minnesota	1942	Comprehensive	Health	One year	Graduated
Missouri	1942	Homes for aged, chronically ill, incurable	Health	Year from issuance	Graduated
Nebraska	1944	Boarding homes for publicly dependent aged, blind**	Welfare	Year from issuance	$1
New Jersey	1927	Nursing homes	Institutions and Agencies	Year from issuance	$25
North Dakota	1946	Boarding homes for aged, infirm	Welfare	Calendar year	None
Ohio	1942	Boarding, rest, convalescent homes for aged, infirm	Welfare	Year from issuance	$5
Oklahoma	1946	Comprehensive	Health	Calendar year	Graduated
Pennsylvania	Approx. 1931	Nursing homes, proprietary hospitals	Welfare	Year from issuance	$15
Rhode Island	1929	Homes for aged, convalescent	Welfare	2 years from issuance	None
South Dakota	Pending referendum	Comprehensive	Health	Year ending June 30	Graduated
Texas	Pending appropriation	Boarding, convalescent homes for publicly dependent aged	Health	Not specified	$1

* Coverage of all types of facilities caring for ill persons.
** Recipients of Old Age Assistance and Aid to Blind grants.

homes caring for the aged sick, which generally include nursing homes.

Practically all the twenty states note some particular type of facility to be excluded from the provisions of the licensure law, such as hotels, institutions caring for persons related by blood or marriage to the operator, institutions with negligible capacities, facilities which in good faith rely upon prayer or spiritual means for treatment (but these usually must conform to sanitary regulations) and facilities under public auspices.

On the whole, licensure of nursing homes is a recent development. It has been initiated in twelve states between 1942 and 1946 and in two it is not yet effective, while in the remaining six states it was established prior to 1931.

Licensure is the responsibility of the respective state departments of health in twelve states, in eight of which licensure is comprehensive and in the remaining four covers only nursing homes or their equivalents. In seven states the state departments of welfare are responsible for licensure and in these coverage is confined to nursing homes or their equivalents, and usually with emphasis on facilities caring for the aged or the dependent aged. When the responsible department and the type facility to be licensed are correlated, there is evidence that when responsibility is vested in the welfare department it is most often related to the protection of the aged group rather than to the nursing home population as a whole.

The fact that the majority of the twenty states have licensure periods of one year from the date of issuance, rather than the calendar year, lends credence to the belief that this method makes possible a more economical deployment of licensing manpower and a more even administration, by eliminating the need for concentrated inspections of facilities as the calendar year ends. There are no license fees in four states, all of which confine controls to nursing homes or their equivalents, while Connecticut, which has comprehensive licensure, requires fees only from private mental hospitals. The remaining fifteen states require fees of one of four general types: (1) annual licensure fees identical for all sizes of facilities, (2) a fee for the original license with no payment for renewals, (3) a fee for the original license and a lesser sum for each renewal and (4) fees scaled according to the size of the facility licensed.

The usual licensing procedure requires that an application be filed before the facility is established, after which an inspection of the premises is made by the administering agency. A license is issued if the facility complies with the official regulations applicable thereto. Subsequently, periodic inspections are made to determine whether regulations continue to be fulfilled and, in some states (New Jersey and North Dakota), to provide continuing consultative service to and supervision of the licensed facilities. Some specifically require that plans for new construction or material remodeling be submitted for approval to the licensing agency. In the states having comprehensive licensure of medical and medically related institutions, the procedure is generally the same as that described above. However, as part of the procedure following their receipt of the application for a license, each institution is classified as to type and is required to conform to the regulations formulated for the specific classification.

The features most frequently covered by the regulations to be met as a condition of operation are those relative to location (zoning), building construction, fire protection, sanitation, heating, equipment, accommodations, records of patients and reports to the licensing agency. Specifications vary in detail, and undoubtedly in quality of enforcement, among the states. In addition, a majority of the states include requirements in their regulations relative to admissions, although many confine themselves only to specifying the general types of patients not to be accepted for care. In several states admissions on a life basis are prohibited.

A number of the states, but far from all, require that at least one registered nurse, or a practical nurse as the alternative, be employed by the licensee, and some specifically set forth the maximum ratios of patients to any one nurse. Some states require that physicians take considerable responsibility for supervising the medical care provided, while others merely state that a physician shall be on call.

Licenses generally may be revoked for cause, subject to appeal. Moreover, all twenty states have penalties for non-conformance to their respective licensure laws and regulations, subject to appeal. Such violations are usually classed as misdemeanors; violations are subject to fines, imprisonment, or both in twelve states and fines only in the rest. Fines range from small minimum amounts to be specified by the licensing authority to a maximum of $1000. Imprisonment allowable is from minimum periods to be specified by the licensing authority in some states to a maximum of six months in others.

PART II

HISTORICAL SUMMARY
OF THE
WORK OF THE COMMISSION
1938–1947

AN HISTORICAL SUMMARY OF THE WORK OF THE COMMISSION 1938–1947

INITIAL STAGES

This immediate report deals with planning for the care of the chronically ill in New York State. During the period of its existence, the Commission, on its own initiative and at the suggestion of the executive branch of the State government, engaged in a variety of activities, both civil and wartime, dealing with the health of the people of the State of New York. The work of the Commission has been reported in ten previous official legislative documents.

In the Act creating the Health Commission in 1938, the Legislative finds and declares as the policy of the State:

> "that the health of the inhabitants of the State is a matter of state concern;
>
> (This principle was specifically incorporated in the revised Constitution adopted by the vote of the people in 1938)
>
> "that adequate medical care is an essential element of public health;
>
> "that the present efforts of the medical profession, in providing medical care, should be supplemented by the state and local governments;
>
> "that the problem of economic need and the problem of providing adequate medical care are not identical and may require different approaches for their ultimate solution; and
>
> "that a long range state health program directed toward all groups of the population should be formulated and carried out."

The Commission was charged to recommend a long-range State health program in accordance with this policy and to investigate, study and analyze ways and means for improving and maintaining the health of the people of the State, including but not limited to the following:

> "proposals designed to minimize the risk of illness by increasing preventive efforts through extension of public health services;
>
> "proposals for furnishing adequate medical care for persons of low income, the cost to be met from public funds;
>
> "proposals making available public funds for the support of medical education and for studies, investigations and procedures for raising the standards of medical practice;
>
> "proposals making available public funds for medical research in recognition of the need for maintaining high standards of practice in both preventive and curative medicine;
>
> "proposals making public funds available to hospitals which render services to persons of low income and for laboratory, diagnostic and consultative services;
>
> "the utilization of private institutions in the allocation of public funds for any of the foregoing so long as the services rendered by them are designed to carry out the objectives of such program and the declared policy of the state;
>
> "the investigation and planning of the measures proposed by the commission and the direction and execution of such measures by persons expert in the work involved; and
>
> "proposals designed to effect adequate administration and supervision of the health functions of the state government and if deemed advisable the consolidation under a separate department of all federal and state health and medical services and activities."

During the first year of the Commission's existence, its work was undertaken on an extremely broad base. Acting pursuant to its original charge, the Commission began to investigate, study and analyze ways and means of improving and maintaining the health of the people of the State. In order to get a cross-section of public opinion on the question of medical care and unfilled needs, public hearings were held in New York City and in several communities of the Adirondack section of New York State, at which there appeared professional representatives of numerous State departments and public agencies; experts in the administration of public health and medical care; professional representatives of the State and local medical, dental, and nursing organizations; representatives of labor and industry; representatives of life insurance companies and nonprofit hospital expense insurance corporations; representatives of foundations and organizations devoted to the improvement of the health and welfare of the people and the alleviation of the socio-economic consequences of their unmet medical and social needs; medical economists; both fiscal and legislative representatives of the people, engaged in State and local government; and finally, representatives of potential consumers of medical services—both preventive and curative—through spokesmen of such organizations as the national, State and local Parent Teacher Associations, the National Consumers' League, the Child Welfare League of America, and many others.

Individual conferences were also held with a great number of the aforementioned persons. Many of the opinions expressed were highly controversial in nature, despite an apparent agreement on the part of individuals and groups with respect to the essentials of preventive and curative medicine and the need for their practical application. It was indicated that there was an overwhelming urge for increased avail-

ability of preventive and curative services to a large group of the population not then able to provide such care from its own resources under the then existing organization of such services. The Commission also considered the amendments to the Constitution to the State of New York adopted in 1938, wherein power was given to the legislature to provide for protection, by insurance or otherwise, against the hazards of sickness. Wide disagreement was revealed both in the public hearings and the deliberations of the Commission with regard to the necessary steps which would be most effective in inaugurating a long-range health program specifically designed to protect the citizens of New York State against the hazards of sickness and unmet medical needs. The Commission concurred in the view expressed by the then Governor of the State, Hon. Herbert H. Lehman, in his annual message to the Legislature in 1939, when he said, "It is inadvisable for the State immediately to launch upon a program which will involve very large expenditures without first making a thorough study of all aspects of the problem."

RECOMMENDATIONS—1939

The Preliminary Report of the Commission, Legislative Document (1939) No. 97, "Preliminary Report of the New York State Temporary Legislative Commission to Formulate a Long Range State Health Program," consisted of Ten Preliminary Recommendations and Ten Recommendations for Future Study, presented against a pictorial background, county by county, of the medical and health resources of the State of New York: showing *what* they were, *where* they were and some indication of *how* they were used. Certain trends were traced in the movement toward decentralization of the professional and technical services and facilities of the State agencies in the three fields: preventive or health services; institutional or hospital services; and curative or medical care services.

During its second year, the Commission engaged in a number of studies in which it attempted to get at the heart of the problems involved in the distribution of medical services to persons who need them, by designing a number of special studies which would secure pertinent factual data with respect to specific areas in this broad field. These dealt with the problems confronting (1) individuals in need of medical care, (2) the physicians and hospitals who attempt to meet these needs and (3) members of families or representatives of agencies with moral or legal responsibility for paying medical and hospital bills.

These studies included an evaluation of the volume, type and, in some instances, the quality of professional and institutional services requested by or provided to individuals in the lower income groups.

A careful study was also made of a representative sample of individuals who had experienced treatment in hospital wards, together with an analysis of the economic and medical circumstances involved in the illnesses which brought them to the hospital. The central position of a general hospital in the distribution of medical care was appraised, with due consideration given to the organization and training of the hospital staff.

Throughout, an attempt was made to ascertain the individual roles and interrelationships of the voluntary and governmental agencies then assuming responsibilities in meeting the medical care requirements of the individuals in the various groups under observation.

A pioneer attempt was made to appraise the quality as well as the quantity of the medical care experienced by patients prior to admission to hospital wards for the treatment of a catastrophic illness. Light was thrown on this element of quality by inquiries with respect to: extent of self-medication; delay in securing a physician and reasons therefor; and the type and extent of diagnostic procedures employed by the attending physician. Consideration was given to the mechanisms for the distribution of medical care to the indigent and medically indigent by the public agencies responsible, in view of the increasing role which these agencies play in the provision of medical care for persons in the low income groups.

The Commission recognized the generally accepted concept that "preventive and curative medicine cannot be separated on any sound principle and in any scheme of medical service must be brought together in close coordination." This is particularly true with respect to diseases and conditions for which specific methods of treatment and control have been established, and for which the public health importance to the community of successful treatment transcends considerations of the economic status of the individual. These diseases and conditions include pneumonia, cancer, syphilis, tuberculosis, dental caries, drug addiction and physical defects of childhood.

Careful consideration was given by the Commission to specific mechanisms proposed or established for the distribution of medical care and health services on a budgetary prepayment basis among the groups of the population who find difficulty in meeting the burdens imposed by the hazards of illness. Budgeting the costs of medical care for large groups of the population usually involves the concept of insurance, compulsory or voluntary, to spread the risk.

It was apparent that the varied financial contributions involved in meeting such costs could be paid individually or in combination by the insured, industry and the State. There was marked difference of opinion expressed regarding the possible effect of the insurance method of payment upon the quality of the medical care distributed. The Commission felt that a long range health program should "build for the future without undue intervention with local autonomy, viewing both central and local problems as parts of one whole." Such a program should be "a means rather than an end, an improvement in the machinery of government. It cannot be a substitute for medical science, for the local authority, or for voluntary enterprise, nor for that impulse of public assent without

which all instruments of government will prove useless.''

Specifically these studies dealt with

I. Medical Care in Welfare Districts, November 1939, N. Y. S. (Exclusive of New York City).

IA. Physical Condition of Persons Admitted to County Homes.

II. Medical Care Programs Operated by Departments of Public Welfare, New York State.

III. Patients Discharged from Hospital Wards, 1939.

IV. Pay Status of Patients in Hospital Wards and Clinics in New York State, November 1939.

V. Graduate Medical Education in New York State.

VI. Health Insurance—Voluntary and Compulsory.

VII. Special Health Problems: pneumonia, cancer, syphilis, tuberculosis, dental care, drug addiction, handicapped children, laboratory services.

In its 1940 Report, Legislative Document (1940), No. 91, ''Medical Care In New York State, 1939'', as a result of the above and other studies, the Ten Preliminary Recommendations and Ten Recommendations for Further Study were commented upon. The work of the Commission confirmed its belief in the validity of these recommendations and it contemplated continuing its activities along these lines.

The following are the Recommendations as set forth in the 1939 Report and as commented upon in the 1940 Report:

"Preliminary Recommendations

''1. Establishment of informal interdepartmental committees or councils, on State and local levels—to coordinate health and welfare, preventive, diagnostic and curative services conducted by the several governmental departments or agencies (Health, Welfare, Mental Hygiene, Education, Correction, etc.). Full use should be made of authorized representatives of the organized medical and related professions, for advice and counsel in professional matters.

"Comment (PR–1).—Continuing studies of the activities and administrative structures of State departments responsible for administration of various aspects of health and medical care reveal the desirability of establishing a representative interdepartmental coordinating council on a State level to guide the health activities in the various State departments. An advisory committee composed of representatives of the medical and related professions and agencies, should be consulted before any steps are taken toward coordination of the health functions of the several departments. This should lead to the discovery and elimination of expensive duplication of services with a resultant increase in efficiency and economy. At any local level where similar complexity and duplication of health activities exist, a similar policy of coordination should be followed.

''2. Provision for uniform record keeping and compilation of municipal expenditures for public health and medical care—so that a tabulation by the Bureau of Municipal Accounts of the State will immediately reveal expensive duplication and expedite future planning to permit more effective and economical use of public funds.

"Comment (PR–2).—Studies by this Commission, as well as other State and Federal agencies, have revealed the difficulty and the practical impossibility in ascertaining under existing methods of fiscal reporting, actual expenditures of public funds for health and medical care and reliable cost data for comparative purposes. Increased Federal and State participation in these fields has given great impetus to the development of standard schedules for reporting health expenditures on Federal, State and local levels. A standardization of the fiscal report forms for health and medical care expenditures is imperative on both a State and local level. This can be achieved by a collaboration between the agencies responsible for State administration of health services and expenditures, the Division of State Planning, the Division of Audit and Control and the Budget Director.

''3. Extension of public health education on a broad base, to provide for every citizen full information on the availability of health and medical facilities and services. Organized voluntary lay and professional groups should actively participate in this statewide program.

"Comment (PR–3).—Public health education should provide each individual with the ability to recognize the necessity for medical attention and a knowledge of health and medical facilities available to him. A study, by the Commission, of patients discharged from hospital wards in New York State, throws a new light upon the variations in the extent to which present methods of public health education reach individuals in the lower income groups who experience catastrophic illness. The extent to which sick persons fail to recognize the necessity for medical care, the degree to which they resort to self-medication and the extent to which there are both personal and economic barriers to the prompt and full use of competent medical diagnosis and care—as revealed in the study—are indices of the failure of public health education to reach the individuals who are most in need of it.

''4. Expansion of full-time trained public health personnel and services to provide a more equitable coverage for each county of the State, and an extension of post-graduate education of practicing physicians in the practical application of proven advances in the treatment and control of certain diseases and conditions of public health importance.

"Comment (PR–4).—Great progress has been made in the training of full-time public health workers and many localities in the State have benefited by increasing availability to them of such personnel. This program conducted with state and federal aid has been greatly strengthened by the interest and activity of the State and county medical societies in sponsoring and conducting short post-graduate seminar courses for practicing physicians, designed to expedite the application of advances in medical science, in the treatment and control of diseases of public health importance. A knowledge of the advances in both preventive and curative medicine has been acquired by many physicians in the State under this broad training program. Through the efforts of the Speakers' Bureaus of the county medical societies in interpreting these advances to the general public, a great

opportunity is provided for direct application of this new knowledge. However, the supply of properly trained public health personnel is so inadequate in relation to the need, that both State and local governmental agencies should not be hampered by geographic restrictions in the selection and appointment of such qualified personnel.

"5. Integration of public health and school nursing services in a generalized program, with the training and employment of a sufficient number of additional qualified nurses to meet modern standards.

"Comment (PR–5).—Since the number of qualified public health nurses is still insufficient to provide even a minimum public health nursing service in the communities of the State, the extension of such services to include school nursing should be deferred until it can be given proper consideration in the development of a well-rounded community health program. The need, however, for the integration of public health and school nursing services was revealed in many of the studies made by the Commission.

"6. Increase the effectiveness of the general practitioner by expansion of county laboratory systems—or approval of existing local laboratories for certain purposes—to make readily available such diagnostic facilities to every community and physician in the State.

"Comment (PR–6).—The practice of modern medicine by the general practitioner and the specialist requires not only that there be adequate diagnostic laboratory facilities available but that there should be no barriers to their use. Several studies made by the Commission, including the study of patients discharged from hospital wards and the study of medical care in welfare districts, revealed that there is a tremendous disparity between the different communities, and even between individual physician and patients—in the extent to which laboratory facilities and procedures are available or are requested and used.

"An inventory and appraisal of existing laboratory facilities throughout the State is being made to develop a program which would permit each physician an opportunity to secure at least the basic modern laboratory analyses, in every instance where in his professional judgment they are needed, irrespective of the economic status of the patient. One way of achieving this minimum objective is to expand the scope of services of existing public health laboratories to include the performances of urinalyses, blood counts, blood chemistry and basal metabolism tests, in every instance when requested by a physician.

"7. Establishment of a coordinated system of therapeutic and diagnostic tumor and cancer clinics and making available to approved local institutions State or Federal radium, or x-ray equipment, for specific treatment by qualified radiologists.

"Comment (PR–7).—This recommendation has been carried out by the new Division of Cancer Control established in the State Department of Health upon the basis of the findings of the special Cancer Commission.

"8. Promotion of a comprehensive maternity program, to include amendments to the Public Welfare Law and necessary additional legislative appropriations to provide State aid for necessary hospital care of maternity cases in approved institutions.

"Comment (PR–8).—Considerable progress has been made in the development of a comprehensive maternity program by the successful operation in a number of areas of demonstration projects developed by the State Department of Health with funds made available under the Federal Social Security Act.

"9. A reorientation of the rôle of the approved general hospital, public or private, in the preventive and curative services of the community, so that:

"a. Unnecessary duplication of accommodations or wasteful competition on a local or regional basis may be eliminated;

"b. The general practitioner and his patient may make more effective use of the consultant, specialist and laboratory services and modern therapeutic and diagnostic equipment which should be available in an approved general hospital and out-patient department.

"c. The general practitioner may have an increased opportunity to treat cases that fall within his sphere of competence, in the patient's home, in the physician's office, or in the hospital. Also, that the general practitioner may have a better opportunity to enjoy the professional benefits incident to working on a hospital staff with his colleagues.

"d. Social service in the hospital may be integrated with community social services to provide more effective methods of communication between the hospital and the general practitioner in the interests of continuity of treatment to promote the patient's restoration to health or the best possible social adjustment in the light of his condition.

**"Comment (PR–9).—The central position of the general hospital in any long range health program, State or local, has been recognized in most of the studies made by this Commission. These studies were designed to reveal the current status and relationship of the general hospital in the practice of medicine in New York State and the role which it plays in meeting the health needs of both the individual and the community.

"The study of medical care in welfare districts was undertaken to reveal the extent to which care in a general hospital was requested and utilized, both by persons receiving other forms of public assistance and by persons otherwise able to provide for themselves but unable to pay for necessary medical care. The study of medical care programs operated by welfare departments was planned to reveal the interrelationships between the agencies in the community having responsibility for the provision of medical care, including hospitalization, for persons unable to provide it for themselves.

"The study of patients discharged from hospital wards in New York State and the study of the payment status of patients receiving care in hospital wards or clinics was undertaken in the belief that an intimate analysis of the circumstances surrounding the admission and care of individual patients in hospital wards or clinics, including the economic factors, should reveal a graphic picture of the current functions of the general hospital in the distribution of medical care in New York State. These studies were designed also to reveal the various ways by which responsible governmental agencies could use more effectively the hospitals operated by some municipalities and the extensive facilities available in the widely distributed voluntary hospitals in the State.

"A general hospital cannot be used effectively unless a trained staff, including competent physicians, is readily

available to make the most effective use of its facilities. Another study by the Commission was devoted to the problems of graduate medical education, including intern training, and was devised to reveal hospital staff practices in the voluntary hospitals in upstate New York. These staff practices were considered in the light of the standards adopted by the American College of Surgeons and the American Medical Association in order to appraise both the quantity and the quality of the medical care provided by these hospitals.

"Other studies made by the Commission endeavored to define the central position of the general hospital in the existing and proposed plans for the provision of medical care on a voluntary prepayment basis, as well as its relationship to the control of communicable disease, and certain other diseases of public health importance which are now considered to be essential activities of a well-rounded public health program.

"10. Immediate revision of the State Insurance Law to permit and encourage sound and well-planned voluntary health and medical care insurance schemes as well as expansion of voluntary hospital service insurance with ample provisions for record-keeping, and current analyses to provide actuarial data directly related to the individual health needs, met by the voluntary insurance schemes, in New York State, as one of the bases for the formulation of a long range health program for the State.

"Comment (PR–10).—The Commission has continued its discussions and studies of current and proposed plans for the distribution of medical care on a voluntary prepayment basis.

"The adoption of Article IX-C of the State Insurance Law was followed by the initiation and development of voluntary medical care insurance schemes in addition to the continued expansion of existing voluntary hospital service plans. The Commission has followed closely the development of such schemes in this State and has made a careful study of similar legislation and trends in other states. While sufficient actuarial data are not yet available for a proper evaluation of the specific plans and trends, there was accumulated evidence sufficient to justify continued emphasis by the Commission on a policy of encouraging the widest possible range of experimentation in this field.

"The need for such broad experimentation is posed in the difference in procedures required in plans operating under the medical expense indemnity and medical service principle. The differences in principle lead to variations in the completeness of medical care and scope of preventive services provided.

"The need for increased emphasis on the necessity for professional supervision by the appropriate State agencies, of the quality of medical care rendered under such prepayment schemes was revealed in analyses of existing or proposed plans and legislation in New York and other states.

"Recommendations for Further Study

"1. Thorough study of all aspects of the problem of meeting the demand for compulsory health insurance for wage earners, including their dependents, in fixed income levels.

"Comment (RFS–1).—The Commission immediately recognized that while compulsory health insurance is one of the methods of distributing medical care, it is primarily a procedure for pooling funds contributed by insured persons and their employers, using such funds to pay for such medical care and to provide cash benefits to the insured during the periods of disability. It was recognized by the Commission that the medical needs of wage earners, including their dependents, in fixed income levels, could be met in many ways which differed, one from the other, both with respect to the scope of medical services provided and the methods by which such services were distributed, supervised and paid for.

"Compulsory health insurance, therefore, should be considered in the light of its development in foreign countries, the applicability of such development to New York State, and its relationship to other methods of distributing medical care which might be more appropriate to the conditions prevailing in New York State. Hence, the studies made by the Commission of existing and proposed schemes for public provision of medical care, and studies of voluntary hospital service and medical care insurance programs, should be carefully considered, together with the private practice of medicine, in the evaluation of this study of compulsory health insurance.

"Due consideration was given by the Commission to the possible social and economic implications for New York State of a compulsory health insurance scheme. To reveal these implications, estimates were made with respect to the extent of coverage and the probable costs to the insured wage earner, industry and the State government, by a hypothetical application of the provisions of the Compulsory Health Insurance Bill introduced by the Honorable Robert F. Wagner, Jr., in the 1939 session of the New York State Legislature.

"2. Studies of the relative merits of existing and proposed schemes for public provision of medical care for persons who are unable to secure such care for themselves—and a classification of such schemes according to their applicability to communities varying widely with regard to:

"a. Population composition and density;

"b. Financial resources;

"c. Existing formal public or private medical and health facilities;

"d. Unmet health needs.

"Comment (RFS–2).—Studies were undertaken by the Commission to survey existing public medical care administration in counties with different characteristics as to population, financial resources and volume of existing health and medical facilities, in order to determine procedures and policies involved in the provision of good medical care for the indigent and medically indigent. Practically all of the field studies were devoted to those sections of the population believed to have experienced the greatest difficulty in securing good medical care for themselves, and for whom government has assumed the greatest responsibility.

"Throughout these studies emphasis was placed upon the availability, adequacy and quality of the medical services provided at public expense, together with the degree to which public medical care programs were integrated with the general health facilities in the community.

"3. Study of the need and advisability of amending the Unemployment Insurance Law to provide unemployment insurance benefits for wage earners temporarily incapacitated due to illness, and the evaluation of other actuarially sound statutory and administrative schemes for partial restoration of income, for wage earners temporarily incapacitated by illness. Due consideration should be given to the arguments for and against combining treatment and invalidity certification as dual functions of a practicing physician.

"Comment (RFS–3).—The study made by the Commission of problems involved in proposals to provide partial restoration of income for wage earners temporarily incapacitated by illness, revealed serious financial and administrative difficulties. To amend the Unemployment Insurance Law to provide unemployment insurance benefits for wage earners temporarily incapacitated due to illness, or to provide sickness benefits in cash by other statutory provisions, was recognized by the Commission as involving problems similar to those encountered in the administration of proposed compulsory health insurance schemes—with similar implications with respect to increased costs to the insured, industry and the State. This problem was further complicated by the reluctance of the medical profession to recognize the propriety of combining treatment and invalidity certification as dual responsibilities of a practicing physician.

"4. Studies of voluntary hospital service and medical care insurance programs and the extent to which, in the light of the amended Constitution of the State of New York, they protect her citizens against the hazards of sickness. Also, an appraisal should be made of the relative significance of commercial health and hospital expense insurance, in relation to non-profit voluntary plans in operation.

"Comment (RFS–4).—The Commission has conducted a broad study dealing with many aspects of health insurance, both compulsory and voluntary. It has studied the extension of voluntary hospital service plans and the initiation of voluntary non-profit medical care insurance programs, and has weighed the relative significance of these non-profit voluntary plans with the commercial health and hospital expense insurance schemes, which have been available to the public in one form or another for a great many years. Consideration was also given in these studies to the cost of such programs, the degree of health protection furnished by each, and the relation in terms of their availability to the various economic groups of the population.

"5. Special studies in the field of mental hygiene, school hygiene and child guidance, to determine the possibility of a coordinated application, in sequence, of the principles of modern preventive and protective science, to the end that an opportunity may be provided for normal development on the basis of the physical and mental equipment found in each child.

"Comment (RFS–5).—The Commission recognizes the broad implications of any program designed to provide for the normal development of each child on the basis of his physical and mental equipment. Such a program implies a high degree of coordination between functions now exercised by several different State and local agencies, and should be studied further. The problems involved in the fields of mental hygiene, school hygiene and child guidance should be subjects of serious consideration by the interdepartmental councils suggested in Preliminary Recommendation No. 1 above. Neglect of these problems may be one of the causes for the present constant increase in the population of the mental hospitals maintained by the State, which require disproportionate increases in expenditures for their maintenance.

"6. Development of a school health program, in accordance with the best modern scientific standards, and its integration in a comprehensive long range health program both for the community and for the individual. Due consideration should be given to the desirability of providing for each child, a continuity of health supervision to assure prompt medical, surgical and corrective services, when needed—from infancy, through childhood and adolescence to maturity.

"Comment (RFS–6).—The necessity of a coordination of existing school health services with a long range health program was indicated through several studies made by the Commission. The question posed as to the relative importance of the educational and medical phases of school health examinations was carefully considered. Although from a pedagogical point of view health examinations are considered part of the educational process, health supervision by way of medical examination, with the appropriate medical and surgical corrective services to be rendered if necessary, seemed to be a basic fact to be considered in evaluating a school health program. Studies made by other investigating agencies have revealed that considerable sums of State money are spent to conduct present school health programs varying widely in scope and effectiveness. Due consideration should be given to the health protection provided under these school health programs in proportion to the expenditures therefor.

"7. Studies of the need for additional expansion of governmental health and medical care services to meet special health problems such as:

"a. Pneumonia control;

"b. Cancer control;

"c. Syphilis control;

"d. Tuberculosis control—including hospitalization, rehabilitation, and after care;

"e. Dental care and dental hygiene, especially for children;

"f. Drug addiction control, including the provision of a State farm colony for treatment and rehabilitation of addicts;

"g. Physical rehabilitation and social adjustment for permanently handicapped children, as an integral part of the existing State and local program for the care of remediable crippled children; and

"h. Care of chronic illness and infirmity, including adult physical rehabilitation for restoration of earning capacity.

"Comment (RFS–7).—Each of the special health problems referred to in this recommendation have been subjects of study by the State Department of Health which has responsibility for the administration of these State sponsored programs. Therefore, the Commission to avoid expensive duplication of effort, has not made detailed studies of each individual problem but has considered these problems in their relationships to a number of the broad studies which it has conducted during the current year. While separate progress reports are presented with respect to recent developments in a number of these disease control programs, the factors involved in chronic illness and infirmity have been given special emphasis in the Commission's studies relating to medical care in welfare districts and patients discharged from hospital wards.

"8. Studies of the need for diagnostic laboratory, and consultant and specialist services, as well as a modern clinical, diagnostic and therapeutic armamentarium available to all physicians, through public facility, if necessary. In meeting

this need, consideration should be given to the full utilization of existing approved general hospitals.

"Comment (RFS–8).—The extent of the need for diagnostic laboratory, and consultant and specialist services, together with the rôle of general hospitals in meeting such needs is revealed in a number of major studies made by the Commission. Special consideration was given to the problems involved in the extension of laboratory services.

"9. The study of administrative and jurisdictional control by various agencies of State and local government over public health and medical care activities to determine the advisability of consolidation and eradication of overlapping controls, in the interests of efficiency and economy.

"Comment (RFS–9).—The Commission's studies of medical care in welfare districts, and medical care programs operated by departments of public welfare, as well as related factors involved in the study of patients in hospital wards, required an examination of the various administrative agencies of State and local government assuming responsibility for meeting the demands for public health and medical care. These studies reemphasized the desirability of active interdepartmental councils on State and local levels to coordinate and simplify present methods of public health and medical care administration.

"10. Establishment of comprehensive health and medical care administrative facilities on a broad basis—by promotion of county health departments—or by establishment of a county medical administration, as a subdivision of State health and/or welfare districts, or as a part of a decentralized administrative authority, specifically designed to carry out a unified long range preventive and curative health program in the State of New York.

"Comment (RFS–10).—The deliberations and studies of the Commission and a careful review of the development of the health and medical services in the State during the past twenty-five years indicate the statutory, political and administrative barriers to the establishment of comprehensive health and medical care administrative facilities. Consolidation of existing local administrative facilities requires a new approach with the development of a basic pattern of administration sufficiently flexible to permit adaptation of the details to meet the particular health and medical care needs of the community—without impairment of the full and effective use of qualified medical and health facilities already established.

"The study of medical care programs operated by welfare departments has resulted in the development of such a pattern for the use of local counties and cities, the basic requirement of which is medical direction, by a qualified physician, of all efforts to provide necessary preventive and curative services for persons accepted for care at public expense. The value of the integration or consolidation of such a program with a county health administration should be carefully considered in the development of a long range health preventive and curative program for the State of New York."

HEALTH IN THE DEFENSE PROGRAM

While work was continuing along the lines indicated by the Recommendations for Further Study, the international situation was such that the Government of the United States began to enter upon a precedent-shattering program of National Defense in order to insure its liberties and its rights in a jungle-like world.

On July 17, 1940, pursuant to the suggestion of the then Governor Herbert H. Lehman, Lieut. Governor Charles Poletti, acting in his capacity as State Coordinator for National Defense, wrote the following letter to Chairman of the Health Commission:

STATE OF NEW YORK
ALBANY

CHARLES POLETTI
Lieutenant Governor

July 17, 1940

MY DEAR ASSEMBLYMAN MAILLER:

As a result of our conference, and in accordance with the letter sent you by Governor Lehman, I would propose, in my capacity as State Coordinator for National Defense, that your Commission assist us by assemblying and analyzing data relative to the health resources of our State.

This work by your Commission will help make it possible to develop a plan whereby the health requirements of the armed forces can be met without serious disruption to the maintenance of adequate health services of civilian communities, especially industrial centers.

Pertinent data should include information concerning all available medical personnel, their qualifications, ages and adaptability for either military or civil duty, together with their proper distribution in order to provide adequate medical services to the civilian population in the event of an emergency.

Similar data should be obtained concerning the nursing profession in both the field of public service and in private practice. From all the hospitals of the State you could obtain information concerning their present capacity, facilities, equipment, personnel and what expansion of bed facilities could be undertaken without the necessity of additional construction.

It is very important to us to ascertain in what manner and to what extent a national emergency would affect the staff and personnel of the hospital in so far as their physicians and nurses might be required for military duty, and how their mobilization would react on the efficiency of these hospitals.

In conducting this work, may I make it plain that the above are merely suggestive and I am relying upon your judgment and discretion to secure pertinent information from groups in allied fields of health.

We expect you to make full use of the many agencies, both public and voluntary, at federal, state and local levels, who are already organized for health services and who are at the present time conscious of their responsibilities in a national emergency. These agencies will undoubtedly be very pleased to cooperate with the work you contemplate doing in behalf of the State.

Yours sincerely,

(Signed) CHARLES POLETTI,
State Coordinator of National Defense.

The Commission realized that the following problems might arise which would require organization and coordination on the State and local levels of the efforts of various health groups:

The establishment of a plan whereby communities would not be depleted of physicians and specialists in the event of a national emergency;

The forming of mobile emergency squads of physicians, surgeons and nurses capable of being immediately transported to any area experiencing a catastrophe;

A program of medical care to guard the physical fitness of workers in the productive war industries;

The commissioning of certain leaders in the medical profession as instructors in military surgery;

A coordinated plan of health instruction for the civilian population in preventive medicine, sanitation, and emergency first aid;

A ready supply of drugs, surgical supplies and serums for all communities;

A speedy physical examination and classification of industrial workers and the rehabilitation of those with physical defects;

Cautions to safeguard the water supplies and sewage disposal systems, and the creation of auxiliary water supplies;

The maintenance of a balanced diet for the public and the use of adequate substitutes in the event of a food shortage;

The rapid immunization of the public against such diseases as typhoid, smallpox, tetanus and diphtheria;

In the event of invasion, diseases not now prominent in the country might appear and would have to be efficiently dealt with. These diseases might include epidemic typhus, cholera, yellow fever and malaria;

The mobilization of resources to combat an extensive epidemic of influenza;

The maintenance of control methods for venereal diseases;

Accomplishing an orderly evacuation of the civilian population with due regard for essential health services, and in a manner that would not interfere with the military forces;

The prevention of panic among the civilian population and the utilization of all necessary safeguards against the hazards of enemy attack;

The insuring of adequate public health nursing services for each community;

The maintenance of schools for the training of nurses in their expanded duties;

Planning in agreement with the military organization concerning which hospitals might be commandeered by the military.

It is interesting to note that by the middle of 1943 active programs under the direction of various official and voluntary agencies existed in practically every one of the above fields, except in those of medical care to guard physical fitness of workers and rehabilitation.

On July 30, 1940, at the Academy of Medicine, New York City, the Commission held a Health Mobilization conference at which there were present, in addition to members of the Commission and the Commission staff, representatives of the Association of American Medical Colleges, The Hospital Association of Greater New York, The Hospital Association of New York State, The Medical Society of New York County, The Medical Society of the State of New York, American Federation of Nurses, American Public Health Association, American Red Cross, National Association of Public Health Nurses, New York City Department of Health, New York State Association of Approved Laboratories, New York State Department of Health, New York State Medical Association Bulletin, New York State Nurses' Association, and Westchester County Department of Health. A very careful analysis of the possibilities that might develop during the national emergency and the steps that might be taken to meet them were thoroughly discussed and explored. Realizing the fundamental necessity of approaching these problems on a local as well as a State basis, the conference felt that there was an urgent need for an official Health Preparedness Committee in each county of the State, to properly appraise and help to meet the various community health needs. Chairman Mailler appointed an Advisory Committee to the Health Preparedness Commission, which met on August 13, 1940 at the Academy of Medicine, and which sent recommendations to Lieut. Governor Poletti that local Health Preparedness Committees be formed in every community of the State. These instructions were approved and action authorized thereon. On October 3, 1940, Chairman Mailler sent a letter and instructions to all chairmen of boards of supervisors or county executives in the State relative to the establishment of local Health Preparedness Committees. The process of the organization of these local committees was begun, instructions were sent to their local Chairman, and the Chairman of the Commission and members of the staff made personal visits to various communities to stimulate interest in their activating the work of these committees. By December 7, 1941, fifty-four Health Preparedness Committees in various counties had been personally addressed by the Chairman of the Commission and members of its staff. The initial work of the Commission in the field of Health Preparedness is set forth in Legislative Document (1941) No. 43, Special Report of the New York State Commission to Formulate a Long Range Health Program on Health Mobilization for Defense, submitted to the Legislature, January 10, 1941.

Another phase of the Commission's work that was carried on at this time dealt with the hospital care of the mentally ill. In 1940 it was asked by Governor Lehman to consider the problems involved in connection with the proposed demolition of Manhattan State Hospital on Ward's Island in 1943. A subcommittee was appointed to study the problems surrounding the proposed demolition of the hospital, and proceeded to act by gathering data, by field visits and by holding an all-day conference on February 7, 1941, of persons interested in the subject. Over forty persons testified,

including former Governor Alfred E. Smith. As a result of the Commission's recommendations, the time of demolition of the hospital was extended from 1943 to 1948. The Commission also found that there was a need for a State institution to care for acutely ill mental patients from New York City within the metropolitan area because of the hazard involved in transporting these patients to distant institutions. It was believed that one or more multi-storied institutions should be considered. In 1946 arrangements were made with New York City whereby the Island would be used for parks and playgrounds and part for a hospital, and legislation was passed to effect this change. As part of the State's Postwar Public Works Program a mental hospital with beds for 3,160 patients will be erected on Ward's Island.

In view of its activity relative to Manhattan State Hospital and the State Department of Mental Hygiene generally, the Commission was asked by Governor Lehman in 1941 to make a thorough study of the manner in which reimbursement was being made to the State of the cost and maintenance of inmates of State mental institutions. He was of the opinion that in view of the cost to the State of the entire mental hygiene program that the State was not securing as much reimbursement as might be possible from those responsible under the law to pay the cost of such care for their relatives in these institutions. An inquiry was begun and a thorough and detailed study of the operation of the Bureau of Reimbursement in the Department of Mental Hygiene was made. A number of conferences were held with the officials concerned, who finally suggested a plan to increase collections, necessitating however an additional appropriation of $100,000 in their next annual budget. An immediate sum of $6,000 was needed to try this plan on an experimental basis to determine its workability and value. Through the efforts of Chairman Mailler, a Certificate of Intent was secured for $6,000 and the Department of Mental Hygiene was enabled to proceed with its experiment. As a result of the expenditure of $6,000 invested experimentally, the State collected over $50,000 in delinquent accounts and the foundation was laid upon which the Reimbursement Bureau of the Department of Mental Hygiene was radically reformed, with the resultant increase in its collections amounting to hundreds of thousands of dollars per annum.

STATEWIDE HEALTH PREPAREDNESS CONFERENCE

While work was going on at the local level in the various counties with the local Health Preparedness Committees, it was deemed advisable to call a meeting of all these committees, together with the Commission, its Advisory Committee on Health Defense, and various experts in the field of health defense on the local, State and national levels. Accordingly, on March 6, 1941, a State-Wide Health Preparedness Conference, sponsored by the New York State Defense Council and the New York State Health Commission, was held in Chancellor's Hall, Albany, New York. It was of national importance primarily because, for the first time in the health history of New York State, representatives of the many official and voluntary organizations with public health and medical care responsibilities within the counties of the State were brought together, united in a common cause, Health Defense. It was obvious to all concerned that the local Health Preparedness Committees, despite their great potentialities for service in the emergency could not function at their maximum efficiency unless some method was undertaken to inform them, painstakingly and thoroughly, of all the important health defense activities that they could undertake. Since the satisfactory completion of their activities were, to a major degree, the responsibility of the various local committees, it was felt that a more intimate contact should be established among those operating at the national, State and local levels.

The purposes of the conference were to stimulate and encourage the health preparedness programs of the local committees; to provide an opportunity for the State organizations represented on the Advisory Committee to outline desirable health preparedness programs for the local committees; and to facilitate the progress of the health resources inventory.

Invitations were addressed to 14 members of the Commission, 30 members of the Advisory Committee, 47 chairmen (or designees) of the Health Preparedness Committees in the various counties and New York City, 10 chairmen of the boards of supervisors that had, up until that time, failed to report the establishment of their local committees, 6 County Commissioners of Health, 35 Commissioners of Health of the largest cities in the State, 20 District State Health Officers, several Division Directors of the State Department of Health, additional members of State organizations and societies having responsibilities for health, and executives of medical or health programs in other State Departments.

The conference was divided into a morning session in Chancellor's Hall from 10:00 A.M. to 12:15 P.M., a luncheon session at the Hotel Ten Eyck from 12:45 P.M. to 2:15 P.M., which was addressed by Governor Herbert H. Lehman, in his capacity of chairman of the State Defense Council, Lieutenant-Governor Poletti, in his capacity of State Coordinator of National Defense, and Dr. James A. Crabtree of the United States Public Health Service, Executive Secretary of the Advisory Health and Medical Committee of the National Defense Council. The addresses of Governor Lehman and Lieutenant-Governor Poletti were broadcast over radio station WABY. The afternoon session convened at Chancellor's Hall at 2:30 P.M. and adjourned at 5:00 P.M.

Governor Herbert H. Lehman acted as Honorary Chairman of the Conference. Lieutenant-Governor Poletti was Honorary Vice-Chairman, and Assemblyman Lee B. Mailler, Chairman of the New York State Health Commission, was Presiding Chairman at all three sessions.

The various papers and addresses and proceedings of the conference were published in Legislative Document (1941) No. 64, Special Report of the New York State Commission to Formulate a Long Range Health Program on the State-Wide Health Preparedness Conference Sponsored by the New York State Defense Council and The Health Commission. As a matter of historical interest, it seems appropriate to quote at this time from the address of Hon. Herbert H. Lehman, the then Governor of New York, when he commented upon the work of the Health Commission.

> "This conference is sponsored by the New York State Defense Council and the New York State Commission to Formulate a Long Range Health Program. I want to express my very great appreciation of the splendid work that has been done by Assemblyman Mailler and his fellow members of the New York State Commission to Formulate a Long Range Health Program. It is one of the best legislative commissions with which I have been familiar, and because of the excellence of its work, as has been shown by painstaking and conscientious efforts during the past two years, the New York State Defense Council and I, as Governor, have been very happy indeed to place in the charge of the Commission all matters relating to the health of the State of New York in connection with the defense problems with which we are confronted.
>
> "Assemblyman Mailler, I want to express to you and your associates on the committee my very sincere and real gratitude for the fine cooperation which I have had. I thank you heartily!"

In discussing the county Health Preparedness Committees, Governor Lehman had some very pertinent observations to make:

> "This brings me to the important question of the function of the county health preparedness committees, of which most of you, I think, are members. It is not my intention to attempt to suggest a program of activities. I presume you, yourselves, will have at least laid the groundwork for such a program before this meeting is over. I hope so because the value and effectiveness of the service of your committees will depend not only on your interest as individuals and your willingness to serve but on your programs being so organized and coordinated that you will all be pulling in the same direction at the same time. The planning of your program, then, is your job; but in this connection there is one thought I want to bring out and stress, and this is the most important thing I have to say to you: We are fortunate, in this state, in having already established effective machinery for dealing with health problems. We have a well-organized state health department, manned by persons—physicians, nurses, sanitarians, nutritionists and others—who have been selected solely on the basis of their qualifications for their jobs. The field work of the department is organized on a district basis—twenty districts, each in charge of a trained and experienced medical officer. We have a system of state and local laboratories surpassed by none in the world; and we have some 900 local health officers, all physicians, many now well trained in public health, and a majority having at least some special training in this field. It would be a mistake to claim that this organization as a whole is perfect. No organization is. It has its weak points, like all the rest. It can be improved and, as times goes on, undoubtedly will be. But in the meantime we can say with assurance that few, if any, other states are as well organized as we are for protecting and promoting health.
>
> The thought I want to stress is that the New York State Health Commission should not consider taking over any activities which this official organization is carrying on or is prepared to carry on. Your work should supplement and coordinate. I conceive it to be your function to do the necessary things which the established organizations can *not* do; and in determining what things are necessary I believe you should be guided very largely by the officials of the established organization. This will be greatly facilitated by the fact that you have district state health officers and local health officers as members of your committees.
>
> In conclusion, there is one thought, above others, which should stimulate and encourage you in the important work which you are undertaking. Many of the things for which we will have to give time, effort and money in preparation for defense will be of passing value, but anything we accomplish in the protection and promotion of health will be lasting. When the threat of war has passed and world peace and good will have been restored, it will be a permanent asset which will pay increased dividends in the years that lie ahead."

The attitude of the Commission, insofar as the work of the local Health Preparedness Committees has been concerned, has been in line with this statement of Governor Lehman. In Legislative Document (1941) No. 83, Interim Report of the New York State Commission to Formulate a Long Range Health Program, the intentions of the Commission, relative to these local committees, were summarized in a statement made prior to the time the Commission began its intensive work in the emergency medical service and allied fields:

> "For the first time in the history of our State, there has been formed in every county a fully representative group of socially-minded individuals who are imbued with a common purpose, namely: to cooperate in safeguarding and improving the health of their community. They are specialists in health fields, social workers, public officials,

representatives of voluntary agencies and individuals of strong social consciousness. The amalgamation of these forces, each making its own contribution to the common cause, may crystallize the sentiment for the improvement of health conditions which has been, in many instances, latent in the spirit of the community. An opportunity is thus furnished to provide a forum for the ventilation of ideas and their transmutation into action and accomplishment on a high cooperative plane. From these local committees may spring the administrative machinery by means of which the many and varied local community health problems may be solved.

"Medical care under Social Welfare, preventive services under local Health Departments, the development and growth of local hospitals and the quality of medical care rendered by local physicians are but a few of the outstanding activities to which these committees might devote their attention as part of their health preparedness functions.

"In the process of appraising the health needs and services of its own county, each committee will become aware of any existing deficiencies and devise and apply its own corrective measures.

"The activities of these local committees, their findings, conclusions and recommendations will be carefully evaluated and studied by the Health Commission and its Advisory Committee. An invaluable body of source material on health activity at the community level will thus be made available to anyone interested in these problems. The central authority will benefit by the experience of the local government and community which, in any long range health program, must be considered the fundamental basis of action.

"Should new social patterns develop in the field of health out of the exigencies of the emergency, New York State will be in a position to properly assay their worth and take steps to guide their growth intelligently and with foresight."

At the same time the Commission had not lost sight of its original purposes. In the same report, the following comment was made relative to its planning activities generally.

"From a long range point of view, the Commission finds itself confronted with problems involving both health and social evolution. It is cognizant of the fact that each and every health service that it has examined is merely part of a vast tapestry, the threads of which are so entwined as to affect and react upon each other. Nutrition and the distribution of surplus foods, recreation, physical education, housing, adequate medical care, public health nursing, school health services, hospitalization, maternal and child welfare services, tuberculosis and venereal disease control services, industrial hygiene and workmen's compensation, health education and environmental sanitation and the control of communicable diseases—to mention a few health fields superficially dissimilar—are all manifestations of man's effort in his war upon disease.

"There is little clarity or symmetry in the vast number of governmental agencies in the health field—be they Federal, State, County, City, Town, or Village. The same is true of the multiplicity of voluntary agencies operating in similar areas. It is difficult to catalogue and differentiate them in a manner that does not show immense overlapping and duplication. To plan for the future requires objective analysis and study. It would not be very difficult to construct on paper a long range health plan which would be logical, complete and effective, both clinically and administratively. We find, however, as a practical proposition, the ground occupied, but by no means covered, with a variety of existing health services. These services, each with its own purpose and degree of efficiency, have grown up or been established in a piece-meal, independent and more or less haphazard fashion. As a result, there is overlapping and unnecessary complication and duplication, and yet gaps exist in the provisions needed for a reasonably complete medical care and public health service. Moreover, the question arises as to whether certain existing areas of health administration are suitably and properly placed from a departmental point of view. Any proposal for reform, however, must take into consideration the historical and practical circumstances which have brought them into being.

"Therefore, in formulating a long range health program for the State, the Commission seeks to recognize existing conditions and circumstances so as to adjust, modify and extend present services and administrative arrangements to produce as far as possible effective coordination and unification. Should any new system for distributing medical care be promulgated by law, due consideration must be given existing governmental and voluntary agencies performing health functions."

EMERGENCY MEDICAL SERVICE AND RELATED ACTIVITIES IN WARTIME

When the Commission was continued under chapter 483 of the Laws of 1941, the statute stated:

". . . the commission hereby continued shall have the power, and it shall be its duty, on its own motion or upon the request of the governor or of the New York state council of defense, to undertake, supervise or direct (a) the making of studies, surveys and analyses of the nature, extent, location and availability for use of the health facilities and resources of the state and (b) the formulation and execution of plans for organization, coordination and mobilization of all services and skills pertaining to health for state and national defense purposes, and for the coordination of all activities affecting health or related thereto."

Pursuant to this authority on June 17, 1941, at the suggestion of Lieutenant-Governor Poletti as State Coordinator for National Defense, the Commission's name was changed to the "New York State Health Preparedness Commission" and thereafter it was designated as the Health and Medical Section of the State Council of Defense.

As a result of this work at the local level with the Health Preparedness Committees, the foundation was laid upon which was later built the Emergency Medical Service of the State, which eventually became one of the principal fields of the Commission's activities during the war.

Since the local Health Preparedness Committees were voluntary in nature and advisory in function, considerable time and effort were spent in order to give them their initial impetus. With the advent of EMS and its formation, greater interest was manifested as the Health Preparedness Committees acted as advisory bodies to the local Chiefs of EMS.

The work of the Commission in the Emergency Medical Service and its collateral and related activities are fully set forth in two commission reports, Legislative Document (1942) No. 64, 1941–1942 Report of the New York State Commission to Formulate a Long Range Program—Health Preparedness Commission—and Legislative Document (1943) No. 75, 1942–1943 Report of the New York State Commission to Formulate a Long Range Health Program, also known as New York State Health Preparedness Commission.

In June, 1941, Dr. George Baehr of New York City, who has been a member of the Commission since July, 1939, and an active participant in its State-wide health preparedness activities, was appointed Chief Medical Officer of the United States Office of Civilian Defense. This was an excellent selection from the point of view of New York State as represented by the Commission, and the Federal Government. Because of his participation in the work of the Commission and his other varied activities in the health field, including membership in the New York State Public Health Council, he has a thorough background of conditions relative to health facilities and personnel in New York State. His appointment meant that New York State, in the medical aspects of civilian defense, would be dealing with a Federal official who was already oriented in its problems, cognizant of the steps that had already been taken to help solve them, and ready to cooperate and assist in every possible way. To anyone experienced in the ramifications and complications that sometimes occur in Federal-State relationships, the importance of this can be well appreciated. The complete harmony that existed between the Medical Division of the Federal Office of Civilian Defense and the Health and Medical Section of the New York State War Council was directly attributable to Dr. Baehr's appointment.

The then State Director of Civilian Protection, General John J. O'Ryan, Dr. Baehr, Assemblyman Mailler, and members of the Commission staff, conferred on July 7, 1941 concerning the work of the Commission in the creation and activation of the local Health Preparedness Committees, their use under proposed Federal plans and patterns for emergency medical services to be developed in the local areas, the integration of the work of the Commission with the Civilian Protection Division of the State Defense Council and other problems which might arise in the field of medical care and health because of emergency conditions.

As a result of this conference, a liaison was established between the State Office of Civilian Protection and the regional office of the Medical Division of the Federal Office of Civilian Defense. In this way proper relationships were maintained and it was possible for the Commission to get a true perspective of the State picture as a whole, particularly in relation to the Federal administrative machinery and field of action. At the same time, organizational work was going on where it was most vital and necessary—at the local level—through the local Health Preparedness Committees.

Thereafter, on September 2, 1941, the then Governor, Herbert H. Lehman, as Chairman of the New York State council of Defense, sent a letter to each local Defense Council Chairman in the State asking him to appoint a local Chief of Emergency Medical Service.

The creation and activation of the Emergency Medical Service was a task of considerable proportion, particularly since practically all of those engaged in it were working on a voluntary basis. After Pearl Harbor, the apathy that had existed in some areas towards the Emergency Medical Service changed overnight to an intense desire to accomplish results. Fortunately, the foundation of the Emergency Medical Service had been laid in the creation of the local Health Preparedness Committees. Had they not existed, the work would have been much more difficult and much precious time lost.

The Emergency Medical Service was fundamentally based on local organization. National and State planning helped to give it form and direction, but without the cooperation rendered by the various communities of the State, it would have been practically impossible to have created and implemented the Emergency Medical Service. Many public and voluntary organizations were of invaluable assistance in this work. The Commission wishes once more to express its gratitude and appreciation to all the individuals and groups who made it possible to set up this organization so necessary for the protection of the lives of the citizens of New York State.

The excellent cooperation and assistance which these persons rendered to the State, district and local Chiefs of Emergency Medical Service was of vital importance. The work of the doctors, nurses and hospital staffs is particularly to be commended in this connection. In each local community, Emergency Medical Service represented long hours of labor on the part of groups who acted wholly on a voluntary basis. Drills during night blackouts, frequently under bad weather conditions, increased the personal sacrifices undergone by them. All of this was further intensified by the

increasing load that was placed upon the members of the Emergency Medical Service because of the fact that the armed forces continued to take professional medical and nursing personnel in increasing numbers. This added to the burden borne by those remaining behind who carried on the work of Emergency Medical Service in addition to meeting the regular peacetime community needs for health service.

Emergency Medical Service brought with it a host of collateral activities and their related problems. The Commission found itself engaged in a task that required considerable public relations work in addition to actual creative planning of administrative machinery. Availability of physicians, hospital facilities and nursing services, blood and plasma reserves, training of physicians in the treatment of wounds of chemical warfare, health aspects of possible evacuation measures, duties of pharmacists in the event of enemy action, relation of the American Red Cross and other voluntary groups to the Emergency Medical Service, were some of the matters that had to be analyzed, evaluated, and determined so that they might be given their proper place in this program.

Generally speaking the over-all pattern of Emergency Medical Service in the State might be summarized as follows: The primary activity on the part of local hospitals to meet the possible emergency consisted of the organization of the hospital medical and nursing staff into mobile emergency medical teams, which could be quickly moved to the scene of the disaster, or to the Casualty Stations within the immediate vicinity. The severely injured were to be given first aid and transported promptly to the hospitals. Minor injuries were to be cared for at the Casualty Stations. This required the organization of hospital administration to provide for the rapid admission or rapid evacuation of patients, dependent on various conditions, the expansion of facilities in the hospital itself to care for an increased number of patients, the planning of increased ambulance services, and the development of teams of physicians and nurses competent in shock therapy and surgery. In addition, as the hospital could also be the object of enemy attack, general protective measures such as blackout and other precautions had to be undertaken by it. At the same time, plans had to be made on the district and State levels to guard against the overtaxing of hospital facilities in local areas where local facilities might not be sufficient to meet the unexpected demands caused by an emergency.

To provide competent medical care to those who were not injured seriously enough to require hospitalization, or those suffering from nervous shock or hysteria, a system of Casualty Stations at hospitals, schools, or other public buildings were planned and developed to ease the demands upon hospitals under emergency conditions.

Through the use of a uniform pattern of organization and standardization, it was possible to develop the EMS in 118 Local War Councils, each of whom had appointed a physician as local Chief of Emergency Medical Service, who was assisted by medical and nurse deputies. Pursuant to the request of Governor Herbert H. Lehman, the Hon. Lee B. Mailler, Chairman of the Commission, was appointed a Special Consultant, U. S. Public Health Service, for the Emergency Medical Service of the State of New York and as such was in charge of the Emergency Medical Service. He was assisted by a Deputy State Chief of Emergency Medical Service, a physician, a State nursing officer and a deputy medical officer in charge of gas protection. Four full-time physicians served as district medical officers, each assigned to one of the districts of the State Office of Civilian Protection. A graduate nurse was appointed a District Nursing Officer subject to the immediate direction of each of the district medical officers. However, as each community developed its local service and improved it, the work of the field men was put on a more routine basis and a lesser number were required. The field staff rendered advice and assistance to local Directors of Civilian Protection and local Chiefs in the organization and supervision of their EMS personnel. Through field visits, evaluations were made of such personnel, their equipment and facilities as well as appraisals of training incidents through practice air-raid alerts. There had been enrolled in the EMS of New York State a total of 82,416 members and trainees. These included 2,454 mobile emergency medical field teams which had a personnel of 2,454 doctors; 4,808 registered nurses and 7,812 medical auxiliaries.

In addition to the Emergency Medical Service, the Commission concerned itself with the medical and nursing personnel of hospitals, shortages of hospital facilities accentuated or brought about by the emergency, and acted at the State, national and local level in conjunction with other federal, State and local agencies to plan to obviate and meet various shortages. Plans were developed and carried out for the distribution of blood plasma throughout the State. A program was developed for gas protection and the treatment of wounds resulting from chemical warfare. A wide program of publicity and education in the field of health preparedness was carried on and innumerable memoranda, directives and bulletins dealing with the health aspects of civilian defense were distributed. The health and medical problems of possible civilian evacuation were gone into by the Commission in conjunction with the Governor's Committee to study plans for the possible evacuation of New York City. Conferences were also held regarding the proceedings whereby selective service rejectees might be physically rehabilitated so as to be rendered fit for military service.

Although the State was fortunate in not suffering any enemy attack, the Emergency Medical Service demonstrated its capacity and usefulness in a number of local civilian disasters. Because of the excellent organization and training of the medical teams, it was responsible for the prompt treatment and hospitalization of many who otherwise might have perished.

Federally-loaned plasma was available and freely used in the treatment of these casualties, being administered both in the field and at the hospitals to which patients were transported.

Railroad wrecks, an explosion in an electrical plant, a food poisoning epidemic, a crash of a pilotless plane into an aircraft factory, and a chlorine gas poisoning accident were among some of the incidents in which the Emergency Medical Service demonstrated its capacities when faced with the necessity for action. About twenty local units and individuals engaged in its activities were awarded a Citation of Merit, and Certificates and Letters of Commendation. In some of the areas of the State, particularly the outlying districts, a permanent organization of EMS was discussed because of the proficient field work of its medical teams.

An interesting comment was made on January 28, 1944 by the Glens Falls Times when it spoke editorially as follows:

> "EMERGENCY MEDICAL SERVICE DESERVES PRAISE
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> "Members of the civilian protection units in Warren County which were called into service in connection with the train wreck near North Creek Wednesday evening demonstrated the thoroughness of their training. To Dr. Morris Maslon, chief of emergency medical service for the county, and his associates fell the task not only of rendering first aid to the injured but also of transporting the more seriously hurt to the hospital, and they did an excellent piece of work.
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> "Despite the fever of excitement such an occurrence always generates, the medical units proceeded about their difficult work in an extremely calm, orderly and efficient manner. There was a minimum of confusion, with each person carrying out his assigned task, and as a result the injured were attended quickly, made as comfortable as possible under the circumstances, and removed as soon as possible to more quiet surroundings.
>
> "The praise given the professional men heading the various units, and the volunteer workers serving under them, by County Director of Civilian Protection Mark C. Doyle was richly deserved. Their achievement demonstrates the value of the civilian protection organization which has been built up in Warren County, and provides further justification for continuing such an organization after the war emergency has passed."

HEALTH PLANNING AT THE LOCAL LEVEL

It can thus be seen how these new activities, brought about as a result of emergency conditions, tended to a change in emphasis in the various fields of the Commission's work. However, all of these activities, since they were communal in aspect, aided the various localities by encouraging the direction of their thinking along community lines. The recognition of health as a community problem is the first realization that community action is required for its solution. There can be no question that each community was rendered highly health-conscious due to local war-time activities in the field of health preparedness. Because of local War Councils and Local Health Preparedness Committees, there were organized official local groups in the community concerned with the number of physicians and nurses available, the number of hospital beds that could be used and the possibility of hospital expansion; the number of nurses and nurses aides; plasma and blood reserves; community diphtheria and small-pox rates; absenteeism in industry; and a host of allied health problems. All of this activity helped to condition the public to respond to the efforts that are being made locally today in medical and hospital planning. The public has become interested in health and the physician has begun to realize the necessity for action.

The various studies of the Commission have convinced it that although plans to solve health problems may readily be drawn on the State and national level, unless such proposals take into consideration the local conditions peculiar to rural as well as urban areas, they will invariably lose their effectiveness. For it is at the local level that the doctors distributing the medical care and the public they are serving will eventually have to arrive at their own solutions of the questions involved. Government may advise and guide but, unless the professional group and lay public voluntarily cooperate, very little lasting good is ultimately accomplished. A study of the historical background of health problems generally will indicate that they are eventually solved by an educational process. Proposed legislation is merely the crystallization that has resulted from scientific and lay thought devoted to these problems. The education involved may be either that of the physician, the health worker, or the public, or all three, but the process must take place. Moreover, this simple principle applies even more to the problems of distribution of medical care than it does to those involving environmental sanitation and communicable disease control.

The creation, development and functioning of EMS as part of the protective services provided the Commission with an excellent example of what may be accomplished at the local level with the aid and guidance of a central authority. With the progress of the allied armies in Europe, the danger of enemy attack on our shores diminished. The Emergency Medical Service having reached the maintenance stage no longer requiring intensive work, the Commission began to shift the emphasis of its principal activity back to the local Health Preparedness Committees, bearing in mind that whatever might be accomplished in this field would have a lasting effect in the local communities.

The work of the local Health Preparedness Committees was extremely ramified prior to and during the war since they were concerned not only with EMS but also with all of the general activities having health

aspects in which the local War Councils were engaged. Meanwhile, the Commission never lost sight of the Recommendations set forth in its first two reports. Efforts were continually made to carry them out, and although progress was being made at the State and local level in these directions, it was of necessity slow. It must be remembered that unless the citizenry is conscious of what health means, educated and willing to do what is required to stay healthy, and utilize the preventive and curative facilities that are and can be provided by medical science, health planning in a great many respects remains paper planning and loses much of its effectiveness. The Commission has not ceased to dedicate its time and effort to the educational process both of the public and the physician, for if health plans might perforce be formulated at a national level, the State, because of the preparatory work that has been done, would be able to take intelligent steps to integrate our State health and medical personnel and facilities most efficiently and economically into such plans. At the present writing, however, this possibility seems rather remote.

Any steps taken at the State level affecting health activities must take into consideration the existence and historical development of present health services. To make any proposals for change effective, the cooperation and understanding of the physician is imperative. For this reason, the Commission has always sought the reaction of the medical profession before embarking on any proposals to change existing conditions, as any real improvement will ultimately require action in each specific local area to bring it about.

The work of the Commission with the Health Preparedness Committees at the local community level also definitely indicated the desirability and necessity of central advice and guidance to help each area initiate and carry on a program that would conform to an over-all State pattern allowing such individual differences to exist as would be required because of particular local situations.

While the local committees were in the formative stage, it was noted by the Commission that in certain areas there was a duplication and overlapping of activities of various groups having health interests. By means of personal visits, efforts were made to adjust these local conflicts. The field trips also indicated the extent to which a general community interest was developing in health problems. Matters formerly of import only to public health groups were being considered by labor and industry. The health of the worker and his family was recognized as a primary requisite in carrying out the industrial portion of the defense program. Potential and existing deficiencies of health resources and personnel which might impede the maximum efficiency of production began to be evaluated and means considered of meeting them. The inability of local resources, financial and otherwise, to cope with these health problems was indicated by these committees. In the monthly report of its activities, dated June 23, 1941, submitted to the State Defense Coordinator, it was said,

> "There are many communities in the State that have outstanding deficiencies and defects in their health programs. These conditions have been known in many instances to the State Health Department for years. Very frequently, basic recommendations and offers of assistance made by the State Department of Health to local counties and communities have not been acted upon because of budgetary and other considerations.
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> "Arrangements have been made to supply the new defense agencies with these facts so that where they affect adversely the defense program, action may be taken to bring about the desired result."

In its report of July 23, 1941, in referring to local problems requiring the assistance of Federal agencies, the Commission stated that it found in the course of its contacts with the Health Preparedness Committees that the problem of financial cost to bring about needed local health improvements to help in the defense program was a very important one. Various members of the local committees expressed themselves at the meetings as feeling that in order to overcome existing health facility deficiencies in their local areas, it was necessary that funds other than those available locally should be provided.

The desirability of furnishing outside financial assistance, although based upon what was of necessity a rapid over-all survey of these areas because of the exigencies of war-time pressures, is of extreme importance because it was borne out by the more intensive studies of the Commission, in certain areas. The desirability and necessity of working at the local and community level, particularly in rural areas, to bring about real advances in health service generally has long been apparent.

It was noticeable that the degree of activity and the extent of the work varied in localities, dependent upon the caliber of the local leadership and the ability of those in charge of the programs. The important result was that the local communities began to think in a cooperative manner of their health problems in relation to defense and other emergency activities.

To develop a workable technique of local approach, so that the communities would be stimulated to act in their own behalf, the Commission conducted a number of intensive studies in certain counties through field visits, conferences and furnishing of pertinent data. These local forums were given an opportunity to explore their own health and medical care facilities, services, problems and needs and decide what changes, if any, were necessary or desirable. If they wished or required outside advice or assistance, the Commission was available, cooperating with the other official and voluntary agencies having health functions.

To help carry on this work, an Advisory Committee was designated to consider the problems of the local Health Preparedness Committees. It held its initial meeting on September 9, 1943, and was composed of responsible public health, medical, dental and social welfare representatives. Studies were made under

its guidance of the resources and needs for medical care in certain selected counties.

In considering each area, the Commission made full and complete use of the data extant in the official departments of the State and in the counties under consideration. The local Health Preparedness Committee, the District State Health Office, the local County Department of Public Welfare, organized medicine, organized dentistry and organized nursing were consulted for an expression of their opinions and viewpoints. Upon completion of a preliminary draft of each study, a responsible and representative local group met with the Field Director of the Commission to consider and edit the material. In this way there was a thorough analysis of the completed study and an opportunity presented for full discussion of any problems and proposals for their solution presented in their report.

One of the objects of the studies was to stimulate local Health Preparedness Committees into action by providing a basis for planning a program to improve the health of the county. These county studies and an analysis thereof constitute the major portion of Legislative Document (1944) No. 56A, 1943–1944 Report of the New York State Commission to Formulate A Long Range Health Program, also known as the New York State Health Preparedness Commission.

The local Health Preparedness Committees were envisaged by the Commission as planning and coordinating groups for local health and medical care services which would (1) study the health status of their respective localities; (2) evaluate and promote needed programs; (3) delegate whenever possible such new programs to existing agencies capable of providing the service; (4) suggest means of curtailing the overlapping of services by two or more agencies; (5) refer to the Commission those problems which are of a statewide nature or defy local solution, yet are not now the responsibility of a specific State department.

A number of conclusions were drawn and suggestions were made by the Advisory Committee on Local Health Preparedness Committees relative to the county studies. One very salient point was that medical care in New York State, both as respects services and facilities, seems to be more often on a regional, rather than on a county or local base, particularly with the advent of modern transportation. The variations in the adequacy and availability of medical and dental care for the medically indigent were commented upon and it was noted that they seemed to be based mostly on administrative procedures. The extent of the problem of the care of the chronically ill was indicated. The desirability of coordination of various activities at the local level was indicated and it was noted that better teamwork in each locality among health and medical care services would result in more prompt, efficient, economical and improved quality of care. The problems involved in school health and the use of school and public health nurses were discussed. Among other points raised were the desirability and utilization of postwar construction plans for the areas, the establishing of county laboratories where needed, an increase in public health nurses, and various other steps that might be taken to improve the health and welfare of the people.

Each county study represented the health and medical care picture in a specific area. Although various general studies had been completed by the Commission, this was the first time such local summaries had been made. Although their primary object was to arouse local interest and stimulate local Health Preparedness Committees so that they might gain experience and competency in community cooperation, they served another very important purpose. The conclusions and suggestions in the local studies served very strongly to confirm certain of the Preliminary Recommendations and the Recommendations for Further Study and the comments thereon that were set forth in the first two Commission reports and which have heretofore been cited.

PLANNING FOR THE CARE OF THE CHRONICALLY ILL

Two points brought out by the county studies impressed the Commission as being of primary interest; one was the vital and growing importance of the problem of chronic illness, the "unseen plague," and the other was the regional aspects of the distribution of medical and hospital care. Because of the demand for quality medical service, there is a natural tendency to use health and medical care facilities on a regional basis. However, since planning for the care of the chronically ill seemed of paramount and immediate necessity, the Commission concentrated the major portion of its activity in this field. It realized that the needs of the chronically ill were to a very great degree similar to those of all members of the population requiring medical care. Since they constitute a large segment of the total of such persons, it was readily apparent that the medical attention, hospital and nursing care and public health services which the chronically ill receive must be furnished by the same physicians, nurses, institutions and agencies concerned with rendering service to other groups. Proposed plans for the chronically ill must carefully consider local, county, regional and State relationships in the distribution of all health services. Moreover, such plans had to be so drawn as to provide for the possibility of their later integration into a larger pattern in the event other developments should take place in the health field.

The Commission was further impelled to concentrate on the problem of the chronically ill because of the fact that Governor Dewey in his message of 1944 had requested the creation of a Commission on Medical Care to make studies, surveys and investigations of programs for medical care of persons in the State, especially the needy sick.

Assemblyman Lee B. Mailler, Chairman of the Health Commission, was Vice-Chairman of the Commission on Medical Care. By agreement of the respective Commissions, the Health Commission was to limit

its primary interests to the coordination of existing governmental functions concerned with medical care, to the determination of the natural regions of the State in respect to suitability for development or integration of facilities therein to the effect that each region would contain the service and the facilities necessary for a comprehensive health program, and to a study of the needs and facilities for the chronically ill. The Commission on Medical Care was to limit its primary interests to a determination of the volume, cost, and adequacy of medical services available to the people of the State, the extent to which such service needed to be revised, supplemented or supplanted to provide a high order of medical care and the means whereby needs should be met. The Commission on Medical Care eventually concentrated its activities on medical care and medical insurance; the Health Commission on planning a program for the chronically ill.

It was realized that the questions posed by the problem of the care of the chronically ill are similar to those involved in the distribution of quality medical service generally. Hence the natural tendency to use health and medical care facilities on a regional basis, geographically speaking, would have to be carefully weighed in any proposed planning. A study was accordingly made, as a result of which tentative primary and secondary medical care regions and centers were projected for New York State. The teaching resources, manpower, technical services and facilities in each area grouped around a center of medical quality were taken into consideration in arriving at the tentative boundaries set up. The Commission's work in this connection was reported in Legislative Document (1945) No. 78A—Planning for the Care of the Chronically Ill in New York State—Regional Aspects, the New York State Commission to Formulate a Long-Range Health Program, also known as the New York State Health Preparedness Commission. The maps setting forth these proposed geographic boundaries were preliminarily released in June 1945. Indicating the trends that future planning might take, they met with widespread interest in the various State departments, were useful to communities envisaging the development of hospital services and have been considered and provisionally applied as the basis for the hospital survey and plan of the Joint Hospital Board of the New York State Postwar Public Works Planning Commission, whose functions have now been taken over by the Joint Hospital Survey and Planning Commission.

The Commission continued its studies and did intensive work in the medical-social and institutional aspects of the care of the chronically ill. The results of this research were published in Legislative Document (1946) No. 66A—Planning For the Care of the Chronically Ill in New York State—Some Medical-Social and Institutional Aspects, New York State Commission to Formulate a Long-Range Health Program, also known as the New York State Health Preparedness Commission.

The present report setting forth a program for the chronically ill, also contains a summary of the previous work done by the Commission which has served as a basis for these proposals. It is hoped that the plan projected herein in the field of the chronically ill will help lay the foundation upon which will ultimately be based a long-range regional health plan for the State of New York.

STEPS TOWARD A LONG RANGE HEALTH PROGRAM

Throughout the years of its existence the Commission has been impressed by the fact that a great time lag exists between planning in the health field, the proposing of remedial measures, their eventual implementation by legislation or executive order, and their effectuation by administrative procedures.

An examination of the Commission's original Recommendations and Recommendations for Further Study in the light of the events of the last two years may help to clarify this observation. Governor Thomas E. Dewey, in his farseeing Special Message of March 4, 1946, in which he outlined a new State health program gave ample demonstration that the time was ripe to bring to fruition some of the goals towards which the Commission had been aiming for years. In its 1940 report the Commission made suggestions relative to tuberculosis control, particularly that hospitalization for tuberculosis should be placed on a public health, rather than a welfare, basis. As a result of Governor Dewey's message, the Legislature in 1946 completed the process of taking the "dollar sign" off the treatment of tuberculosis.

The Governor's suggestions as to local health departments, culminating in passage by the 1946 Legislature of the statute giving State Aid for Public Health Work was in line with the Commission's 1939 Recommendation for the "Establishment of comprehensive health and medical care administrative facilities on a broad basis—by promotion of county health departments—or by establishment of a county medical administration, as a subdivision of State health and/or welfare districts, or as part of a decentralized administrative authority, specifically designed to carry out a unified long-range preventive and curative health program for the State of New York."

The Governor's remarks dealing with the professional training and recruitment program were consonant with the 1939 Recommendation of the Commission for the "Expansion of full-time trained public health personnel and services to provide a more equitable coverage for each county of the State, and an extension of post-graduate education of practicing physicians in the practical application of proven advances in the treatment and control of certain diseases and conditions of public health importance."

The establishment of the Interdepartmental Health Council in 1946 by Executive Order of the Governor was in accord with the first Recommendation made by the Commission in 1939 advising the "Establishment

of informal interdepartmental committees or councils, on State and local levels, to coordinate health and welfare, preventive, diagnostic and curative services conducted by the several governmental departments or agencies (Health, Welfare, Mental Hygiene, Education, Correction, etc.). Full use should be made of authorized representatives of the organized medical and related professions, for advice and counsel in professional matters." The Interdepartmental Health Council is in a position to fulfill another 1939 Recommendation of the Commission suggesting "The study of administrative and jurisdictional control by various agencies of State and local government and public health and medical care activities to determine the advisability of consolidation and eradication of overlapping controls, in the interests of efficiency and economy."

The Governor's other statements concerning school health, maternity care, infancy and child hygiene, neuro-psychiatric cases and presently unmet or inadequately covered needs is an assurance that consideration will be given to other 1939 Recommendations of the Commission such as: "Extension of public health education on a broad base, to provide for every citizen full information on the availability of health and medical facilities and services. Organized voluntary lay and professional groups should actively participate in the statewide program"; "Integration of public health and school nursing services in a generalized program, with the training and employment of a sufficient number of additional qualified nurses to meet modern standards"; "Promotion of a comprehensive maternity program, to include amendments to the Public Welfare Law and necessary additional legislative appropriations to provide State aid for necessary hospital care of maternity cases in approved institutions"; "Studies of the relative merits of existing and proposed schemes for public provision of medical care for persons who are unable to secure such care for themselves—and a classification of such schemes according to their applicability to communities varying widely with regard to: a. Population composition and density; b. Financial resources; c. Existing formal public or private medical and health facilities; d. Unmet health needs"; "Special studies in the field of mental hygiene, school hygiene and child guidance, to determine the possibility of a coordinated application, in sequence, of the principles of modern preventive and protective science, to the end that an opportunity may be provided for normal development on the basis of the physical and mental equipment found in each child"; and "Development of a school health program, in accordance with the best modern scientific standards, and its integration in a comprehensive long-range health program both for the community and for the individual. Due consideration should be given to the desirability of providing for each child, a continuity of health supervision to assure prompt medical, surgical and corrective services, when needed—from infancy, through childhood and adolescence to maturity."

Finally, the work of the Joint Hospital Board of the Postwar Public Works Planning Commission and its various advisory groups, which will be continued by its successor, the Joint Hospital Survey and Planning Commission, will permit the fulfillment of the following 1939 Recommendations of the Commission, which will be of inestimable value in improving the quality of medical care and its distribution: "Increase the effectiveness of the general practitioner by expansion of county laboratory systems—or approval of existing local laboratories for certain purposes—to make readily available such diagnostic facilities to every community and physician in the State"; "A reorientation of the role of the approved general hospital, public or private, in the preventive and curative services of the community, so that:

a. Unnecessary duplication of accommodations or wasteful competition on a local or regional basis may be eliminated;

b. The general practitioner and his patient may make more effective use of the consultant, specialist and laboratory services and modern therapeutic and diagnostic equipment which should be available in an approved general hospital and out-patient department.

c. The general practitioner may have an increased opportunity to treat cases that fall within his sphere of competence, in the patient's home, in the physician's office, or in the hospital. Also, that the general practitioner may have a better opportunity to enjoy the professional benefits incident to working on a hospital staff with his colleagues.

d. Social service in the hospital may be integrated with community social services to provide more effective methods of communication between the hospital and the general practitioner in the interests of continuity of treatment to promote the patient's restoration to health or the best possible social adjustment in the light of his condition."

"Studies of the need for diagnostic laboratory, and consultant and specialist services, as well as a modern clinical, diagnostic and thereapeutic armamentarium available to all physicians, through public facility, if necessary. In meeting this need, consideration should be given to the full utilization of existing approved general hospitals."

To those who have studied the health problems of the State, it is apparent that the program envisaged by Governor Thomas E. Dewey in his March 4, 1946 message, when properly implemented and put into effect, will result in a far-reaching advance in the health services of the State. His philosophy of local participation, local control and local responsibility, with the State jointly participating, where necessary, to furnish advice and leadership, is a concept that the Commission has continuously stressed in all its contacts with local communities and its suggestions to State administrative departments.

The plan proposed herein for the care of the chronically ill is founded upon the premise of close and

voluntary cooperation between the State and local authorities. The work of the Joint Hospital Board has furnished an excellent example of the possibilities of this type of constructive State-local relationship. The Joint Hospital Survey and Planning Commission, which has succeeded to its responsibilities, can go far toward making a long-range health program in New York State a reality by taking steps to carry out these proposals for the care of the chronically ill, for in the process of solving this problem there will become apparent the practicable and workable pattern on which such a long-range program may be based.